



# **PSORIASIS**

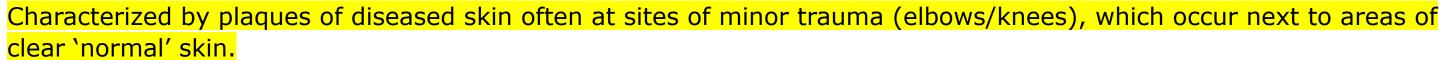
- Q1) Look at this picture carefully, then answer the following questions?
- A) Describe?
- B) Most likely cause?
- C) Most appropriate Tx for this case?

**Answers:** 

- A) Well-demarcated, erythematous plaques with silver-white scaling.
- **B)** Psoriasis
- C) Phototherapy

# **EXPLANATION: -**

<u>Psoriasis</u>: Psoriasis is now considered to be a genetically determined inflammatory systemic autoimmune disease.



- well-demarcated and are erythematous with Silver-white surface scale.
- Associated with seronegative arthritis, type 2 diabetes, cardiovascular disease.

The treatment ladder starts with avoidance of known exacerbating factors (smoking, alcohol), topical therapy, then Ultraviolet treatment (phototherapy and photochemotherapy) and finally systemic medication (tablet, S/C, IV).



- Q2) Look at this picture carefully, then answer the following questions?
- A) What is the name of this condition?
- B) Most likely diagnosis?
- C) Mention other 3 nail changes can be seen with this disease?

- A) onycholysis
- **B)** Psoriasis
- C) Subungual hyperkeratosis / nail Pitting / Beau's lines / Splinter hemorrhages



# **EXPLANATION: -**

Psoriatic nail dystrophy: onycholysis, subungual hyperkeratosis, pitting, Beau's lines (transverse lines, groove), splinter hemorrhages (longitudinal black lines)

1-onycholysis (lifting of the nail plate off the nail bed) due to abnormal cell adhesion; this usually manifests as a white or salmon patch on the nail plate

2-subungal hyperkeratosis (accumulation of chalky looking material under the nail) due to excessive proliferation of the nail bed that can ultimately lead to onycholysis

3-pitting (very small depressions in the nail plate) which result from parakeratotic (nucleated) cells being lost from the nail surface

4-Beau's lines (transverse lines on the nail plate) due to intermittent inflammation of the nail bed, leading to transient arrest in nail growth

5-splinter hemorrhages (which clinically look like minute longitudinal black lines) due to leakage of blood from dilated tortuous capillaries

Q3) What is the histopathology for this disease?

**Answer: - Acanthosis, parakeratosis** 

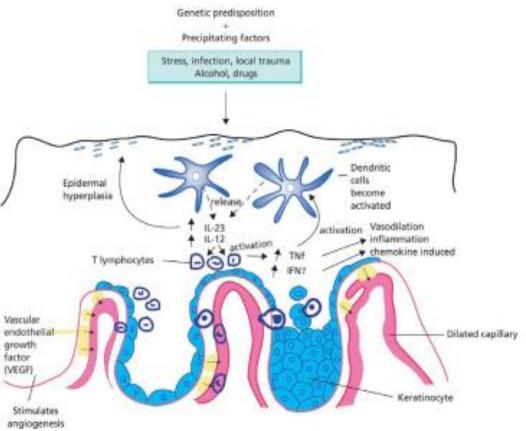
# **EXPLANATION: -**

Genetic predisposition + Precipitating factors "Stress, infection, local trauma Alcohol, drugs, childbirth."

- Hyperkeratosis "increased thickness + Thick keratin scale", parakeratosis" keratocytes retain their nuclei", poorly adherent and easily scraped off keratocytes ('Auspitz sign')
- $\circ$  Vasodilation, angiogenesis  $\to$  Inflammation  $\to$  swelling (oedema) and erythema
- sterile pustules "accumulation of inflammatory cells" → in palmo-plantar pustulosis, Look at this following picture:

Acanthosis: Think of acanthosis as the VIP section of the epidermis. The squamous cell layer—the one responsible for your skin's strength and resilience—decides to bulk up. It's like doing extra reps at the skin gym. Acanthosis often shows up in conditions like psoriasis, where the skin cells are flexing their rete ridges (those little finger-like projections) like they're in a bodybuilding competition.





- Q4) Look at this picture carefully, then answer the following questions?
- A) Describe?
- B) What's the likelihood that her child would affect by this condition?
- C)Name 3 systemic Treatment?

- A) Well-demarcated, erythematous plaques with silver-white scaling.
- **B)** 1 parent:16%, 2parent:50%
- C) methotrexate, cyclosporine, biologic agents: infliximab

# **EXPLANATION: -**

### Systemic treatment

- $\circ$  Indications  $\to$  unstable inflamed psoriasis, widespread disease that have failed to respond to topical/phototherapy, psoriatic arthropathy.
- o first-line systemic → Acitretin ,Cyclosporin A, Methotrexate
- 2nd line → Mycophenolate mofetil (MMF), hydroxyurea, azathioprine
- Agents
- Methotrexate
- Acitretin "vitamin A derivative"
- Cyclosporin A "immunosuppressant"
- Mycophenolate mofetil (MMF), hydroxyurea, azathioprine



- Biological therapy: Agents
- anti-TNF→ Etanercept ,Infliximab, Adalimumab
- Ustekinumab (Anti (IL-12) and IL-23))

Psoriasis is reported to affect approximately 2% of the US population. The median age of onset is 28 years; however, it can present from infancy to old age, when the appearance may be atypical.

The following factors in the history may help in making a diagnosis:

1-Family history of psoriasis; 16% of children will have psoriasis if a single parent is affected and 50% if both parents are affected.

- 2-Trigger factors include stress, infections, trauma, or childbirth.
- 3-Lesions may first appear at sites of minor skin trauma Koebner's phenomenon.
- 4-Lesions usually improve in the sun.
- 5-Psoriasis is usually only mildly itchy.
- 6-Arthropathy may be associated.

- Q5) A patient complains of morning stiffness and pain in her knees, she has scaly lesions on her elbow...?
- A) What is the diagnosis?
- B) Mentions 2 findings supporting your diagnosis?

- A) Psoriatic arthritis
- B) Sausage fingers, onycholysis



# **EXPLANATION: -**

**PA** is an inflammatory arthritis which may be associated with psoriasis; there is genetic predisposition plus immunological/environmental triggers. PA is primarily a disease involving activated CD8 T-memory cells. TX: Methotrexate and Biological therapy (In psoriatic arthritis  $\rightarrow$  at least three tender and swollen joints).

#### **Psoriatic arthritis:**

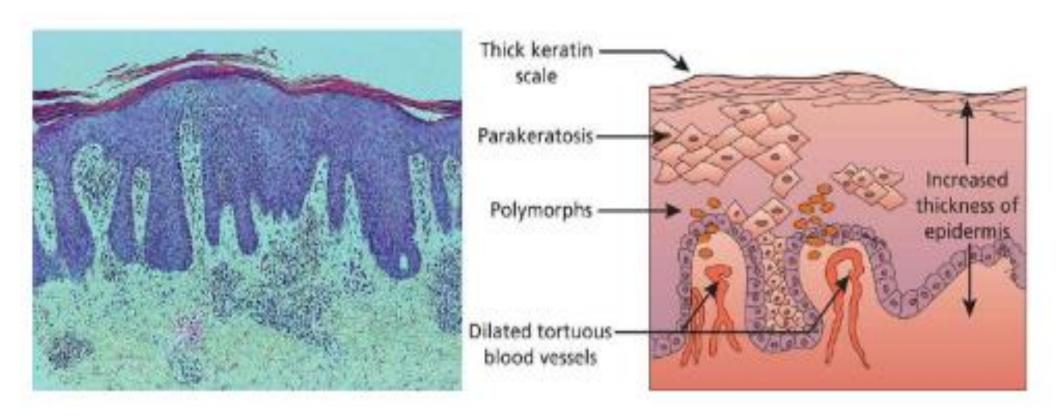
- Five types
- DIP joints (80% have nail changes, enthesitis not synovitis)
- Asymmetrical oligoarticular arthropathy (MC type, hands and feet, 'sausage-shaped' digits)
- Symmetrical polyarthritis (hands, wrists, ankles, 'rheumatoid pattern', female predominance)
- Arthritis mutilans (digits, resorption of bone → 'telescoping' of redundant skin)
- Spondylitis (asymmetrical vertebral involvement, male preponderance, HLA-B27 associated)

- Q6) Look at this picture carefully, then answer the following questions?
- A) what these number represent?
- B) What is the diagnosis?

- A)1-dilated capillary
- **2-Parakeratosis**
- **3-Acanthosis**
- **B)** Psoriasis



# **EXPLANATION: -**



- Q7) Look at this picture carefully, then answer the following questions?
- A) Diagnosis?
- **B)** Description?
- C) Give 3 Types of this disease?

# A) psoriasis

- B) well defined, erythematous beefy colored plaque with heavy silvery scale on the elbow.
- C) plaque psoriasis, guttate psoriasis, erythrodermic psoriasis, pustular psoriasis, flexural psoriasis



# **EXPLANATION: -**

#### **Types**

- plaque psoriasis.
- $\circ$  Guttate  $\to$  widespread small plaques scattered on the trunk and limbs, preceded by sore throat with GBS
- Inverse.
- $\circ$  Palmo-plantar pustular psoriasis (PPPP)  $\to$  yellow then brown
- Acute generalized pustular psoriasis (Von zumbusch) → severe and unstable, precipitated by systemic steroids
- o Acro pustulosis → around the nails and the fingertips
- $\circ$  Flexural psoriasis  $\to$  axilla, groin, natal cleft, beneath the breasts and in skin folds. No scaling
- Napkin psoriasis → exudative
- $\circ$  Erythrodermic  $\rightarrow$  all skin, no scaling, triggers  $\rightarrow$  steroid withdrawal, infection, alcohol, antimalarials, lithium

#### and low calcium

- Complications → heart failure, hypothermia, dehydration
- Psoriatic arthritis.
- Q8) Look at this picture carefully, then answer the following questions?
- A) What is this?
- B) What is the most likely diagnosis?
- C) What other abnormalities can be seen in this disease?

#### **Answers:**

- A) onycholysis ‡
- B) psoriasis ‡
- C) pitting, subungual hyperkeratosis, dystrophy of nails, splinter hemorrhage

# **EXPLANATION: -**

#### ADDITIONAL INFORMATION ABOUT PSORIASIS

#### Topical treatment

- Emollients "Moisturizer"
- Coal tar → keratoplastic, antipruritic, antimicrobial ⇒for stable chronic plaque, used in combination with salicylic acid for thick plaques
- $\circ$  Ichthammol (ammonium bituminosulfonate)  $\to$  anti-inflammatory  $\Rightarrow$  for unstable' or inflamed psoriasis
- Dithranol (anthralin, Goa powder)
- $\circ$  Calcipotriol and tacalcitol, vitamin D analogues, are calmodulin inhibitors  $\rightarrow$  for mild or moderate plaque psoriasis.



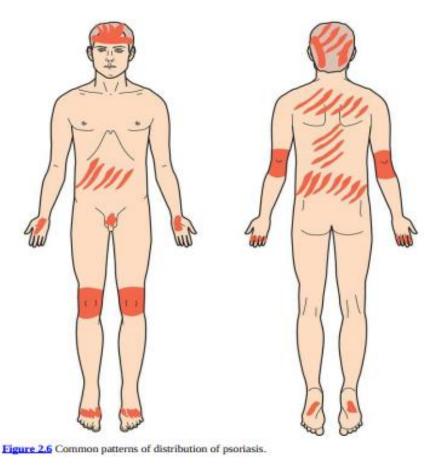
- Corticosteroids "topical" → anti-inflammatory:
- relapse usually occurs on cessation and tachyphylaxis "tolerance"
- Mild/moderate topical steroids → face and flexural skin, and in erythrodermic disease
- Moderate or potent → chronic stable plaques on the body.
- Q9) A patient with a known case of psoriasis presents to the ER?
- A) what is this?
- B) Give 4 conditions that could have led to this progression?

- A) erythroderma
- B) withdrawal of systemic steroids, infections, excess alcohol intake, lithium, low calcium

# **EXPLANATION: -**

**Erythrodermic psoriasis** is a serious, even life-threatening condition, with confluent erythema affecting nearly all of the skin. Diagnosis may not be easy as the characteristic scaling of psoriasis is absent. Chronic plaque psoriasis usually, but not always, precedes the erythroderma. Triggers for erythrodermic psoriasis include withdrawal of systemic steroids, infections, excessive alcohol intake, antimalarials, lithium, and low calcium. Complications of erythrodermic psoriasis result from increased cutaneous blood flow and fluid loss, including heart failure, hypothermia, dehydration, low protein and consequent oedema, secondary infection, and death. Patients should be managed in hospital under the care of a dermatology specialist.

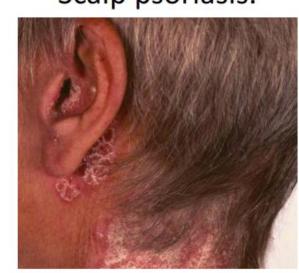




Psoriatic plaques on the trunk.



Scalp psoriasis.





Annular plaques.



(Koebner's phenomenon): psoriasis in surgical scar.



Napkin psoriasis.



Guttate psoriasis.



# NORMAL SKIN, NAILS AND PHOTOSENSITIVITY

Q1) Look at this picture carefully, then answer the following question?

What this is?

**Answer: Skin Atrophy** 

# **EXPLANATION: -**

**Skin atrophy** refers to the thinning of the skin, which can affect both the epidermis (the outer layer) and the dermis (the middle layer). Here are some key points about skin atrophy.

Causes: Aging, Medication, medical conditions like diabetes or vascular diseases.

#### **Common symptoms of thin skin include:**

- Skin that appears thin, dry, or transparent
- Skin that tears or bleeds easily
- Atrophic (thinning) of the top layers of the skin
- Bruising—commonly found on the forearms—after very minor trauma
- Whitish, irregular-shaped, or star-shaped areas often seen on the back of the hand and the forearm caused by exposure to light and/or prolonged use of topical steroid creams



- Q2) Koebner phenomenon is seen in the following except?
- A) Psoriasis
- B) Lichen planus
- C) Atopic dermatitis
- D) Erythema multiform
- E) Vitiligo

Ans:D



# **EXPLANATION: -**

**The Koebner phenomenon**, also known as the isomorphic response, is a reaction where new skin lesions appear on previously healthy skin following trauma or injury, Koebner phenomenon affects people with certain skin diseases, most often with psoriasis. Sometimes, it can happen to people with warts, vitiligo and lichen planus. An injury, wound or burn can cause new lesions that resemble the primary skin disease.

German physician Heinrich Koebner first described the phenomenon in 1876, now described as an isomorphic response. "Isomorphic" is Greek for equal shape. The new lesions look identical (or equal) to the original disease.

Any skin injury that penetrates your skin's top layer (epidermis) and middle layer (dermis) may cause Koebner phenomenon, such as:

- Injections, piercings and punctures.
- Insect and animal bites.
- Scratching or <u>self-injury</u> (such as skin picking).
- Surgical procedures, wounds and injuries.

A <u>dermatologist</u> evaluates and treats skin diseases like Koebner phenomenon. There isn't a test for Koebner phenomenon. Your dermatologist makes the diagnosis based on appearance and history of prior skin diseases, there isn't a specific treatment for Koebner phenomenon. As the phenomenon is simply an extension of your primary skin disease, treatment is usually the same.

**Erythema multiforme (EM)** is an acute, self-limited skin condition characterized by target-like lesions. It often results from infections, medications, or other triggers. Sudden onset without significant prodromes. Within 48-72 hours, a disseminated, usually symmetrical, asymptomatic or slightly burning to itchy exanthema develops, which may also occur in groups in the elbow or knee area. The exanthema develops rapidly and relapses within a few days with a few to hundreds of lesions. A linear arrangement of the lesions is possible (Köbner phenomenon).

- Q3) Look at this picture carefully, then answer the following question?
- A) Mentions the layer of skin?
- B) 2 difference between eccrine and apocrine glands?
- C) Mention 3 components of the dermis?

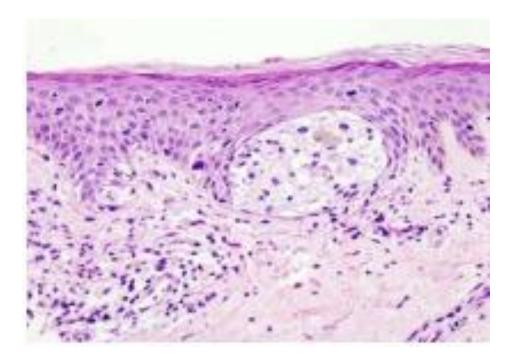
- A) Dermis, epidermis: (Basale, S. spinosum, S. granulosum, S. lucidum, S. corneum)
- **B) Below....**
- C) Connective tissue, blood vessels, adnexal structure

# **EXPLANATION: -**

The skin is composed of Two main layers, each with distinct functions and structures:

#### 1. Epidermis

- Description: The outermost layer of the skin.
- Functions: Acts as a protective barrier against environmental factors, prevents water loss, and provides skin color through melanin.
- Sub-layers:
  - Stratum Corneum: The top layer, made of dead, flattened cells that are shed regularly.
  - Stratum Lucidum: Found only in thick skin areas like the palms and soles.
  - 。Stratum Granulosum: Contains keratinocytes that are moving towards the surface.



- Stratum Spinosum: The thickest part of the epidermis, containing newly formed keratinocytes.
- Stratum Basale: The deepest layer, where new skin cells are generated<sup>12</sup>.

#### 2. Dermis

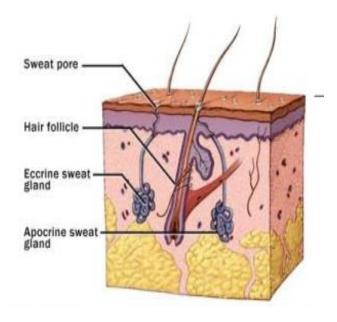
- Description: The middle layer, making up about 90% of the skin's thickness.
- Functions: Provides strength and elasticity through collagen and elastin fibers, houses hair follicles, sweat glands, and oil glands, and contains nerve endings for sensation.
- Components:
  - Papillary Layer: The upper part of the dermis, containing thin collagen fibers and blood vessels.
  - Reticular Layer: The deeper part, with thicker collagen fibers and dense connective tissue

#### B) Apocrine sweat glands:

- Large sweat glands, present at specific locations in the body e.g.: axillae, groin...
- Decapitation secretion: the apical portion of the secretory cell of the gland pinches off and enters the lumen.
- Composed of a coiled secretory portion located at the junction of the dermis and subcutaneous fat, from which a straight portion inserts and secretes into the infundibular portion of the hair follicle

#### **Eccrine sweat glands:**

- Are the major sweat glands in the body
- Almost present everywhere on the human body
- Produce clear, odorless fluid containing mainly water and electrolytes → Merocrine secretion
- Eccrine glands are composed:
- intraepidermal spiral duct, the "acrosyringium";
- Dermal duct, comprising a straight and coiled portion
- secretory tubule, coiled deep in the dermis or hypodermis.
- Eccrine glands are innervated by the sympathetic nervous system, primarily by cholinergic fibers



- Q4) Look at this picture carefully, then answer the following question?
- A) What is the name of layer in red?
- B) Mention two types of cells in this layer?

- A) Epidermis
- B) Keratinocyte, Langerhans cell, melanocyte

# **EXPLANATION: -**

Langerhans cells are specialized immune cells found primarily in the epidermis, the outermost layer of the skin in (stratum spongiosum). They play a crucial role in the body's immune response.

# **Look at this following picture:**



- Q5) Look at this picture carefully, then answer the following question?
- A) What is the main change occurring in these nails?
- B) Give 4 causes?

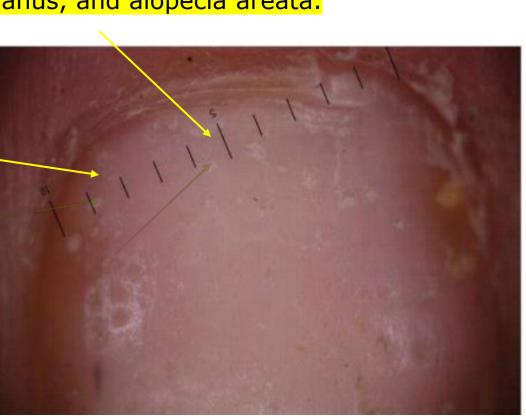
A) pitting

B) PEAL: psoriasis, eczema, alopecia areata, lichen planus

# **EXPLANATION: -**

<u>Pitting:</u> This is seen clinically as small surface depressions of the nail plate that result from a loss of the parakeratotic scale such as occurs in psoriasis. The scale develops through inflammatory diseases affecting the proximal nail matrix including psoriasis, eczema, lichen planus, and alopecia areata.

# **Look at this following picture:**



- Q6) Look at this picture carefully, then answer the following question?
- A) What is this?
- B) What is its content?
- C) Mention 2 uses?

- A) cryotherapy
- B) liquid nitrogen, -196 degree
- C) viral warts, seborrheic keratosis, actinic keratosis, papilloma

# **EXPLANATION: -**

Cryotherapy involves the destruction of tissues by extreme cold (Box 24.1). The tissue is frozen to subzero temperatures, which is then followed by sloughing of dead tissue. Several mechanisms are involved including the osmotic effects of intracellular water leaving the cell and causing dehydration, intracellular ice formation disrupting the cell membrane and ischemic damage due to freezing of vessels. Liquid nitrogen is most commonly employed, although various freezing agents are available such as solid carbon dioxide, nitrous oxide, and a mixture of dimethyl ether and propane. Unless otherwise stated, the rest of this section relates to liquid nitrogen cryotherapy.

The low temperature of liquid nitrogen (-196 °C), ease of storage and relative low cost make it an effective and convenient cryogen. However, its low temperature also results in rapid evaporation and therefore it should be stored carefully in an adequately ventilated area and preferably in a pressurized container.

# Look at this following picture:



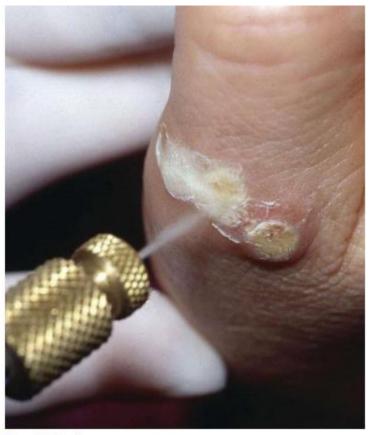


Figure 24.1 Cryotherapy.

Q7) Look at this picture carefully, then answer the following question?

# **HINT: This lesion is painful**

- A) Describe?
- B) Diagnosis?

#### **Answers:**

- A) Pus accumulation within lateral nail fold with swelling and erythema.
- B) Acute paronychia (not chronic because it's painful)

# **EXPLANATION: -**

**Acute paronychia:** Symptoms of acute paronychia appear over hours or a few days. The infection is only in the nail fold and doesn't extend deeper inside the finger or toe. Symptoms go away with treatment and last less than six weeks. Most commonly, infectious paronychia results from a <a href="staph infection">staph infection</a>. Staphylococcus aureus bacteria cause staph infections. Other bacteria (such as Streptococcus pyogenes) can also cause the infection.

Symptoms of paronychia usually develop over several hours or days. Sometimes they take longer to develop. Symptoms appear where the nail meets the skin (the nail fold and cuticle). The sides of the nail can also be affected.





### Paronychia symptoms include:

- Pain, swelling and tenderness around the nail.
- Skin that is red and warm to the touch.
- Pus that builds up under the skin. A white to yellow, pus-filled abscess may form. If an abscess forms, it may require antibiotics and/or drainage.

Chronic paronychia occurs around the nails of individuals involved in 'wet work' who repeatedly put their hands in water (such as child carers, chefs, doctors, dentists, nurses, and hairdressers). Other predisposing factors include diabetes, poor peripheral circulation, removal of the cuticle, and artificial nails. There is erythema and swelling of the nail fold, often on one side with brownish discoloration of the nail. Pus may be exuded. There is usually a mixed infection including C. albicans and bacteria.

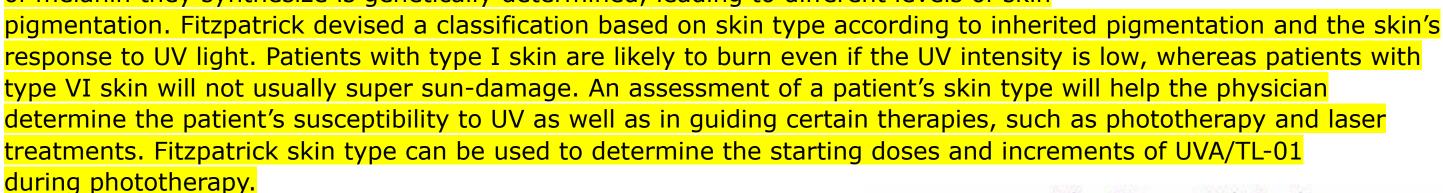
- Q8) Look at this picture carefully, then answer the following question?
- A) This woman tans easily but rarely burns, what skin type does she have?

**Answer: Woman with olive skin, Type 4.** 

# **EXPLANATION: -**

## Fitzpatrick skin type classification:

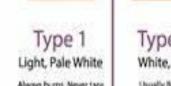
Natural skin pigmentation is formed by melanin which is synthesized by melanocytes. the quantity of melanin in the skin determines its ability to withstand UV radiation. In healthy skin, the number of melanocytes remains constant; however, the amount of melanin they synthesize is genetically determined, leading to different levels of skin



Type I (very fair skin/freckled/red hair) – always burns, never tans.

- Type II (fair skin) usually burns, tans eventually.
- Type III (fair to olive skin) occasionally burns, tans easily.
- Type IV (brown skin) rarely burns, tans easily.
- Type V (dark brown skin) very rarely burns, tans easily.
- Type VI (black skin) never burns, tans easily.





# Descriptive terms

All specialties have their own common terms, and familiarity with a few of those used in dermatology is a great help.
The most important are defined below:

<u>Macule</u> Derived from the Latin for a stain, the term <u>macule</u> is used to describe changes in color without any elevation above the surface of the surrounding skin.! ere may be an increase in pigments such as melanin, giving a black or blue color depending on the depth. Loss of melanin leads to a white macule. Vascular dilatation and inflammation produce erythema. A macule with a diameter greater than 2 cm is called a <u>patch</u>.

<u>Papules and nodules</u>. A papule is a circumscribed, raised lesion, of epidermal or dermal origin, 0.5–1.0 cm in diameter. A nodule is similar to a papule but greater than 1.0 cm in diameter. A vascular papule or nodule is known as a hemangioma.

A plaque is a circumscribed, superficial, elevated plateau area 1.0-2.0 cm in diameter

<u>Vesicles and bullae</u> are raised lesions that contain clear fluid (blisters). A bulla is a vesicle larger than 0.5 cm. they may be superficial within the epidermis or situated in the dermis below it. the more superficial the vesicles/bullae the more likely they are to break open.

<u>Latensification:</u> is a hard thickening of the skin with accentuated skin markings. It commonly results from chronic inflammation and rubbing of the skin.

**Discoid lesions:** these are 'coin-shaped' lesions.

<u>Pustules:</u> the term *pustule* is applied to lesions containing purulent material – which may be due to infection – or sterile pustules (inflammatory polymorphs). that are seen in pustular psoriasis and pustular drug reactions.

<u>Ulceration:</u> results from the loss of the whole thickness of the epidermis and upper dermis. Healing results in a scar.

**Erosion**: An erosion is a superficial loss of epidermis that generally heals without scarring

**Excoriation:** is the partial or complete loss of epidermis as a result of scratching

**Fissuring.** Fissures are slits through the whole thickness of the skin

# SEXUAL TRANSMITTED DISEASE

# ALL QUESTIONS FOR THIS LECTURE CAN BE FOUND WITHIN (VIRAL INFECTIONS)

LECTURE.

# HAIR, SCALP AND ALOPECIA

- Q1) Look at this picture carefully, then answer the following question?
- A) what is the most likely cause?
- B) Mention 2 modalities of treatment?
- C) Name one disease associated with this condition?
- D) Mention 5 causes of non-scaring alopecia.

#### **Answers:**

- A) Alopecia areata
- B) ... 1) Potent topical corticosteroids 2) intralesional cs 3) systemic cs
- C) Thyroiditis / vitiligo

**D**)





# **EXPLANATION: -**

**AA (Alopecia areata)** is an organ-specific autoimmune disease, which leads to non-scarring alopecia. It affects 0.15% of the population and can affect any hair-bearing part of the body. Extensive involvement may lead to total scalp hair loss (alopecia totals), total body hair loss (alopecia universalis) or localized hair loss along the scalp margin

(phasis). AA typically presents with smooth round or oval patches of non-

scarring hair loss on the scalp.

# The age of onset is usually in the "first two decades, the course of AA is difficult to predict. Poor prognostic markers include:

- childhood onset of disease
- atopy
- phasis (band of alopecia in occipital region)
- nail dystrophy
- family history of other autoimmune disorders
- presence of autoantibodies.

#### **Current treatments include the following:**

1-Topical/intralesional corticosteroid

2-Systemic immunosuppression

3-Topical minoxidil (also used in combination with corticosteroids).

#### 4-Platelet rich plasma injected into the affected scalp areas.

vitiligo; family history "in one-third of the patients", In the sharply demarcated, symmetrical macular lesions, loss of melanocytes and melanin

 $\circ$  Autoimmune associations  $\to$  Thyroid disease, Myasthenia gravis, Pernicious anemia, **Alopecia areata**, Hypoparathyroidism, Addison's disease, DM.



Figure 19.3 Alopecia areata.

Q2) Look at this picture carefully, then answer the following question?

HINT: THIS girl has epilepsy and Hypertension

- A) What is this?
- B) Name 2 drugs may she toke and cause this case?

#### **Answers:**

- A) Hirsutism
- B) The most commonly implicated would include ciclosporin and phenytoin And Topical Steroids



# **EXPLANATION: -**

<u>Hirsutism:</u> increased growth of the terminal hairs in androgen-sensitive areas such as the beard and moustache regions in females.

#### Causes:

- Ovarian → PCOS "MCC", Ovarian tumors
- Adrenal → CAH, Cushing's disease
- Idiopathic (racial and familial, with a wide spectrum of normal variation)
- Management
- Normal menstrual cycle → normal hormone levels
- serum testosterone for screening
- androgen antagonists (Cyproterone acetate) and cosmetic (laser)

<u>Hypertrichosis:</u> excessive growth of hair in any part of the body and may be localized (e.g. Becker's nevus) or generalized (Non-androgen dependent excess hair growth).

Causes → congenital or acquired

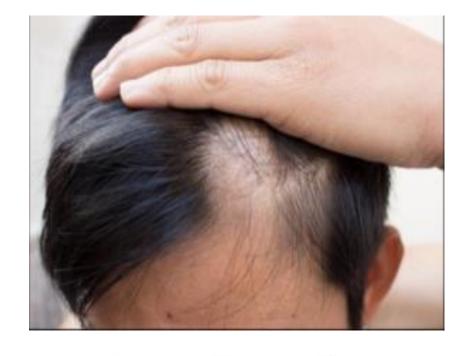
- Hyperthyroidism, porphyria and anorexia nervosa
- Drugs. → Ciclosporin, Minoxidil, Psoralens, Phenytoin, Penicillamine
- Q3) A patient who is known to have Hashimoto disease present with this patch?
- A) Diagnosis?
- B) Mention phases of the hair cycle?

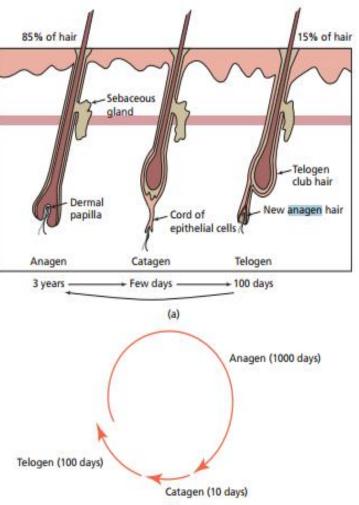
- A) Alopecia areata
- B) Anagen, catagen, telogen, exogen

# **EXPLANATION: -**

The hair follicle is unique among epidermal structures in that it grows in cycles. there are three phases:

- 1) **Anagen** the active growth phase, which typically lasts 1000 days depending on predetermined genetic factors (as opposed to body hair which lasts from 1 to 6 months).
- 2) <u>Catagen</u> the short growth arrest phase, of approximately 10 days.
- 3) **Telogen** the resting phase, lasting approximately 100 days irrespective of location.





- Q4) Look at this picture carefully, then answer the following question?
- A) What is the diagnosis?
- B) Mention 2 causes for this condition?
- C)Drug-induced hypertrichosis:

- A) Hypertrichosis (NOT HIRSUTISM)
- B) Cyclosporine, phenytoin.
- C) Congenital

# **EXPLANATION: -**

<u>Hypertrichosis:</u> excessive growth of hair in any part of the body and may be localized (e.g. Becker's nevus) or generalized (non-androgen dependent excess hair growth) <u>• Causes → congenital or acquired...</u>

- Hyperthyroidism, porphyria and anorexia nervosa
- Drugs. → Ciclosporin, Minoxidil, Psoralens, Phenytoin, Penicillamine

#### ADDITIONAL INFORMATION ABOUT Hair Diseases

#### **Hair loss**

 Cytotoxic agents interrupt the anagen ('growth') phase of the hair cycle, and so loss is rapid and complete; delayed, insidious hair loss generally results from interference with the telogen ('shedding') phase of the hair cycle.

Acitretin, statins and anti-thyroid drugs, Androgenic drugs "testosterone" Methotrexate (chemotherapy), retinoids

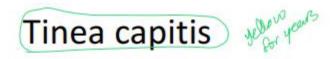




# Nail pitting associated with alopecia areata.



DEARLE S







Lichen planopilaris.



**Discoid Lupus Erythematosus** 



# URTICARIA AND ANGIOEDEMA

- Q1) Look at this picture carefully, then answer the following question?
- A) What is the name of this lesion?
- B) What is the first line of treatment?

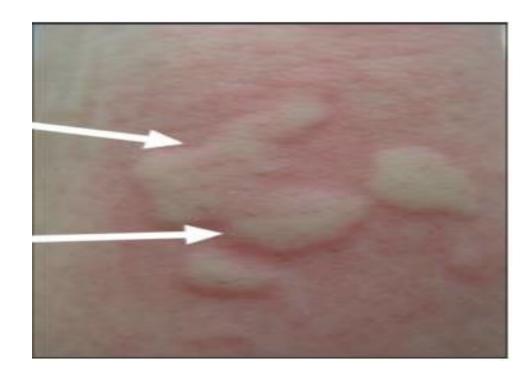
**Answers:** 

- A) Wheal
- **B)** Antihistamines

# **EXPLANATION: -**

- <u>Urticaria:</u>transient pruritic swellings of the skin, often referred to as wheals, hives.
- edema in the superficial layers, well-demarcated erythematous lesions
- Common, self-limiting, controlled with antihistamine.
- Onset → Minutes to hours, lasting minutes or hours (usually less than 24 h)
- Primary lesion → wheal surrounded by flare

**Pathophysiology**  $\rightarrow$  histamine & bradykinin from mast cells "degranulation"  $\Rightarrow$  vessels leak and dilatation  $\rightarrow$  edema



#### **Classification of urticaria:**

- <u>Acute</u> (<6 wks.), <u>chronic</u> (>6 wks.) or according to the underlying cause
- Ordinary urticaria /idiopathic (acute/chronic)
- MC, Blanchable, raised, palpable wheals, which can be linear, papular, annular (circular), or arcuate (serpiginous)
- Possible triggers → infections, vaccinations, medications and food
- Cholinergic urticaria → following warm shower, or after exercise, rarely after cold exposure
- pinhead-sized wheals with a red flare around them.
- Solar urticaria → stinging, burning and itching cause by sunlight exposure, resolve rapidly (minutes to hours) when

#### exposure ceases

- $\circ$  DDx  $\to$  Photosensitive drug eruptions, porphyria , polymorphic light eruption (resolve within days)
- Ox → Light-testing
- **Pressure urticaria**  $\rightarrow$  immediately or delayed up to 6 h, Dx  $\rightarrow$  pressure challenge test

**NOTE**: If the skin eruption lasts for more than 24 h, is painful and resolves with bruising then urticarial vasculitis (Figure 5.1) is more likely than ordinary urticaria.

#### **General management**

- Avoid trigger
- Oral antihistamines → mainstay of treatment/prevention
- Severe resistance cases:
- H1-receptor blockers + H2-receptor blockers +leukotriene receptor antagonists (montelukast)
- Oral corticosteroids → urticarial vasculitis
- angioedema with respiratory distress → adrenaline intramuscularly "EpiPen"

#### Urticaria not to give? (Amoxicillin, NSAID, steroid, h2-blocker alone, paracetamol)

Q2) Look at this picture carefully, then answer the following question?

What's is this?

**Answer**: Dermatographias

# **EXPLANATION: -**

An attempt to elicit Dermatographias: (exaggerated release of histamine causing wheal and flare) should be made by "firmly stroking the skin with a hard object such as the end of a pen; this is usually positive in physical urticaria, the exact cause isn't fully understood, but it may be related to an overactive immune response.



- Q3) Look at this picture carefully, then answer the following question?
- A) What is the primary lesion?
- B) Give two differentials between angioedema and urticaria?
- C) If lasted more than 2 days what should your differential diagnosis include?

**Answers:** 

- A) Wheal
- **B) Below...**



#### C) Urticarial vasculitis $\rightarrow$ skin eruption for more than 24h, painful and resolves with bruising

## **EXPLANATION: -**

- <u>Urticaria</u> → transient pruritic swellings of the skin, often referred to as wheals, hives.
- edema in the superficial layers, well-demarcated erythematous lesions
- Common, self-limiting, controlled with antihistamine.
- Onset → Minutes to hours, lasting minutes or hours (usually less than 24 h)
- Primary lesion → wheal surrounded by flare
- Angioedema → painful rather than itchy
- oultion of the skin (subcutaneous); can occur rapidly and may involve the mucous membranes. Laryngeal oedema is the most serious complication.
- Onset → Minutes to hours, last hours or days.
- o may occur in the face" eyelids, lips and tongue", larynx, abdomen, or arms and legs
- Q4) This patient has recently changed his antihypertensive medication presenting with difficulty in breathing?
- A) What is the diagnosis?
- B) What is the culprit drug?

#### **Answers:**

- A) Angioedema
- B) ACEI



## **EXPLANATION: -**

Angioedema is a reaction similar to hives that affects deeper layers of the skin. It can appear with hives or alone. Signs and symptoms include:

- . Welts that form in minutes to hours
- Swelling, especially around the eyes, cheeks or lips
- . Mild pain and warmth in the affected areas

#### Several medications can cause angioedema, but some of the most common culprits include:

- 1.ACE Inhibitors: These are widely prescribed for high blood pressure and heart failure. Angioedema can occur even after years of use.
- 2. NSAIDs: Nonsteroidal anti-inflammatory drugs like ibuprofen and diclofenac can also trigger angioedema.
- 3.**DPP-4 Inhibitors**: Used for diabetes management, these drugs can cause angioedema, especially when combined with other medications

## Urticarial Vasculitis with bruising



Urticaria from contact with brown caterpillar moths.



## **Ordinary Urticaria**



Figure 5.2 Ordinary urticaria

# Ordinary urticaria with dermatographism.



Cold-induced urticaria on the cheeks.



Annular urticaria.



## SKIN TUMORS

- Q1) Look at this picture carefully, then answer the following question?
- A) Describe?
- B) Most likely diagnosis?

#### **Answers:**

- A) Shiny pearly nodule with superficial telangiectasia
- B) Basal cell carcinoma

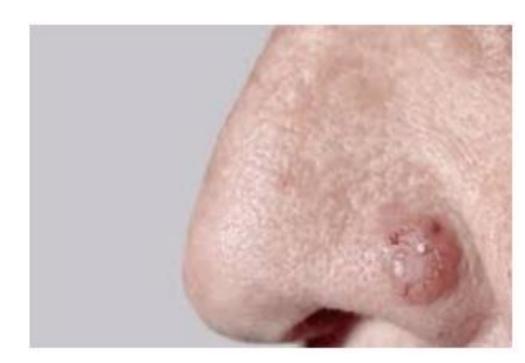
## **EXPLANATION: -**

#### **Basal cell carcinoma (BCC):**

- most common cancer in humans. Lifetime risk of around 30%
- $\circ$  RF  $\to$  age, fair skin, high-intensity UV exposure, radiation, immunosuppression, previous BCCs
- Sun-exposed skin in the 'mask area" of face, Painless
- Our phology →shiny, translucent pearly skin nodule or red patch or 'rolled edge' ulcer
- Color → clear to deeply pigmented.
- $\circ$  Clumps of dysplastic basal cells form nodules that expand and break down  $\rightarrow$  rolled edge ulcer

#### BCC types

■ Nodular  $\rightarrow$  small pearly papules or nodules, rolled edge ulcer, telangiectasia. On sun-exposed areas of the head and neck



- Superficial → erythematous patch, on trunk
- Pigmented
- Morphemic or sclerosing → superficial atrophic scar, loss of the normal skin markings and the indistinct edge
- Rodent ulcer→ central necrosis.
- Management
- Depends on Histology, Bx before Tx
- Face or Morphemic or sclerosing → Mohs' surgery "'gold standard"
- excision (including Mohs' surgery), excision and grafting, curettage and cautery, radiotherapy, cryotherapy, imiquimod 5% and PDT for large superficial BCCs

Basal cell carcinomas most commonly appear on areas of your body exposed to the sun. The most common places to have BCC include:

- Face.
- Scalp.
- Nose.
- Eyelids.

If you don't receive treatment for basal cell carcinoma, the skin cancer can slowly grow in size and invade deeper tissues like muscle and bone and cartilage. The BCC may become painful and ulcerated, which can cause bleeding and infection.

In extremely rare cases, basal cell carcinoma can spread to other parts of your body and cause lifethreatening side effects.

- Q2) All of the following are true about basal cell carcinoma except:
- A) common in elderly
- B) locally destructive tissue

#### C) Early Mets

- D) surgery is the main treatment
- E) most common site is in the face
- Q3) Look at this picture carefully, then answer the following question?

What is the diagnosis?

Answer: Malignant melanoma (Lentigo Malinga melanoma)

## **EXPLANATION: -**

Lentigo maligna melanoma: occurs characteristically on the face

of elderly people. Initially, patients may have single or multiple solar lentigos which are benign and common but can look suspicious. However, over the years patients may develop a slowly growing, irregular and larger pigmented macule (lentigo maligna), which if very large can be treated with imiquimod over many months rather than extensive surgery; however, if a nodule/darker color develops within the pigmented patch then suspect lentigo maligna melanoma.



<u>ADDITIONAL INFORMATION ABOUT MELANOMA: - Risk</u> Factors ⇒ Sun exposure (major), fair-colored hair, light-colored eyes, female sex, older age, a personal or family history of melanoma and congenital defect of DNA repair (xeroderma pigmentosum).

#### **Types of melanoma:**

- Superficial spreading melanoma  $\rightarrow$  most common, back in men, legs in women, irregular margin, brown to black pigmentation, surrounding inflammation or pale, nodules (worse PPX).
- Lentigo maligna melanoma → on face, elderly:
- single or multiple solar lentigos → irregular ,larger pigmented macule (lentigo maligna,tx;imiquimod) → if darker\nodule → Lentigo maligna melanoma
- Nodular melanoma  $\rightarrow$  dark nodule from the start, vertical growth (worse PPX).
- Acral melanoma → palm and soles and near/under the nails:
- ullet Hutchinson's sign ullet Melanonychia; black or brown pigmentation of nail fold adjacent to the nail.
- Amelanotic melanoma → non-pigmented nodules.
- Dysplastic malignant melanoma:
- $\circ$  Prognosis  $\to$  depends on the depth of invasion + LNs, ulcers, Mets
- If not  $Tx \rightarrow$  melanoma satellites (small islands of melanoma nearby) and local Mets  $\rightarrow$  distant Mets "hematogenously, lymphatics".

#### Treatment

- Excise with 2 mm margin → Breslow thickness
- lymph node involvement → fine needle aspiration or lymph node removal for cytology/histology
- If Breslow thickness >1mm→ Sentinel lymph node biopsy (SLNB)
- wide local excision
- Adjuvant therapies → for stage 4 ( Mets or satellites ):
- Chemotherapy
- Immunotherapy "interleukin 2 (IL-2)"
- Targeted therapy for the gene mutation in BRAF
- Melanoma vaccines

- Q4) A mother brought her baby to your clinic, concerned about this lesion?
- A) What is the diagnosis?
- B) Counsel the mother about the treatment, if needed?

- A) Infantile (strawberry nevi) hemangioma
- B) It is benign, and will regress as the infant grows

## **EXPLANATION: -**

#### Hemangiomas/strawberry nevi:

- true benign vascular neoplasms → grow out of proportion to the growing neonate
- Appear at the 1st 3-4 wks., rapidly enlarge at around 6 months of age
- single (80%) or multiple
- Soft vascular swelling on the head and neck
- resolve spontaneously in time and do not require intervention unless recurrently bleeding or interference with
- visual development.
- $\circ$  Tx  $\rightarrow$  oral beta blocker (propranolol)

### Campbell de Morgan spots (cherry hemangiomas):

Discrete red papules 1–5mm in diameter, in <u>adults</u>, on trunk.

## **Look at this following picture:**





#### **Keloid scars**

 dermal fibroblasts, at the sites of skin trauma, proliferate beyond the site of the injury and they do not

regress, unlike hypertrophic scars

## **Look at this following picture:**



Q5) Lesion in the nipple that doesn't responsive to topical steroid you should exclude?

**Answer: Paget's disease** 

## **EXPLANATION: -**

Paget's disease: of the nipple presents with unilateral non-specific erythematous changes on the areola/nipple spreading to the surrounding skin. The cause is an underlying adenocarcinoma of the ducts. It should be considered in any patient with eczematous changes in one breast that fail to respond to simple treatment. Extramammary Paget's can affect the axillae and groin.

Skin biopsy (usually a punch biopsy) for histological analysis may be performed if the diagnosis is uncertain. Beware unilateral eczema of the areola, which could be Paget's disease of the nipple.

TX: - Topical imiquimod





Seborrhoeic keratoses on the trunk, there is a melanoma on the right upper shoulder (shown by the arrow).







## Seborrhoeic keratoses.

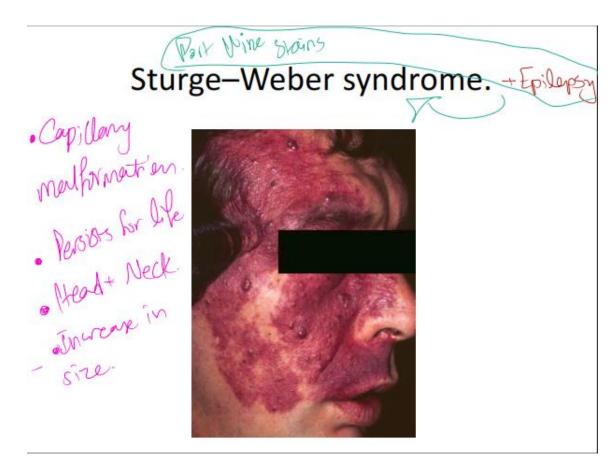


Spider Nevi



At 5'Hes Skin tags Libroepithe of occlusion.

4 Shave Holal amasthesia.



#### 





# Congenital melanocytic naevus.



#### Becker's naevus.



## Keratoacanthoma.



to debate about their exact nature and how they should be managed. Histologically, they look malignant and most specialists feel comfortable treating them as for an SCC.

Keratoacanthoma (central crater keratin filled within the nodule)

Recurrent nodular basal cell carcinoma.



Pigmented basal cell carcinoma.



## Acral malignant melanoma.



(a) Lentigo maligna pre-imiquimod treatment and (b) lentigo maligna midway through treatment with topical imiquimod.

\* on the face of elgerly flip

- slowly graving? lentigo maligna
- irregular.

Dysplasic naevus. moles.

Nest.

\*Deeply promote mergins

4 50%, of superficial melauromas were new and many of which are applical.

## DRUG ERUPTIONS

Q1) Sarah presented with hyperpigmented patches on her face, primarily on the cheeks, forehead, and upper lip. These patches were light brown to dark brown and had developed gradually over the past six months...

All true except: Biopsy is always needed

## **EXPLANATION: -**

<u>Melasma (chloasma)</u> is the result of an overproduction of melanin in sun-exposed skin. The response to laser treatment is poor and may worsen the condition. Post-inflammatory hyperpigmentation is the result of a temporary overproduction of melanin by melanocytes following inflammation. Laser treatment is likely to cause further inflammation and exacerbate the problem.

- Appearance: Brown or gray-brown patches, typically on the cheeks, forehead, nose, and upper lip.
- Causes: Sun exposure, hormonal changes, and genetic factors.
- Treatment: Includes sun protection, topical treatments (like hydroquinone, tretinoin, and azelaic acid)





Figure 10.6 Melasma

Q2) A girl presents to ER with painful hemorrhagic eruptions in the face along with conjunctivitis and exudative secretions. These symptoms appeared after starting a new medication?

What is this?

**Answer: Steven-Jhonson syndrome** 

## **EXPLANATION: -**

Stevens-Johnson syndrome (SJS) and toxic epidermal necrolysis (TEN):



**SJS and TEN are rare**, life-threatening drug-induced hypersensitivity reactions in the skin and mucous membranes. ! is mucocutaneous disorder is characterized by widespread, painful areas of including eyes, mouth, genitalia and respiratory tract epidermal detachment, and erosions of the mucous membranes.

The appearance of the eruption may be preceded by a prodrome of fever, malaise and coryzal symptoms, and skin *pain* is often the first cutaneous manifestation, prior to the appearance of the rash.

- The terms SJS and TEN represent points along a spectrum of severity:
- $\circ$  SJS  $\rightarrow$  <10% BSA detachment,
- $\circ$  TEN  $\rightarrow$  >30% BSA,
- `SJS-TEN overlap' → between 10% and 30% loss.
- Mortality from TEN may be as high as 90% (score >5) and is estimated using the SCORTEN tool
- Tx → stop the drug and supportive care and intravenous immunoglobulin or corticosteroids

#### **Stevens-Johnson Syndrome**

Likely due to medications

Red, purplish skin rash Blisters Affects eyes, mucous membrane, skin Skin shedding



# Drug-induced lupus.



# Drug-induced vasculitis.



## FUNGAL INFECTIONS

- Q1) Look at this picture carefully, then answer the following question?
- A) Describe?
- B) Most likely diagnosis?
- C) How to confirm the diagnosis in the clinic?

**Answers:** 

- A) round, erythematous plaque with central clearing and a scaling, raised border.
- **B)** Tinea corporis
- C) Wood's light

## **EXPLANATION: -**



<u>Tinea corporis</u> also causes pruritus (body AND trunk). Lesions tend to be erythematous with a well-defined scaly edge. Terbinafine 1% cream is the most effective topical treatment for tinea corporis/cruris; other agents include miconazole, clotrimazole, ketoconazole, and econazole for two to four weeks. <u>Wood's light (UV light)</u> → Microspore infections "green-blue fluorescence".

Q2) Look at this picture carefully, then answer the following question?

First line of the treatment is topical: <u>FALSE</u>

## **EXPLANATION: -**

Onychomycosis affects mainly adult toenails and is usually caused by dermatophytes. Nail plates become thickened, brittle, and white to yellow/brown The distal nail plate is usually affected initially with spread proximally to involve the nail fold. In psoriasis of the nail, the changes occur proximally and tend to be symmetrical and are associated with pitting and other evidence of psoriasis elsewhere. Lichen planus may also cause nail dystrophy, but this is usually manifested by vertical ridging and nicks in the nails, Onychomycosis may be caused by yeast infection such as Candida albicans

Tx → oral terbinafine (16 wk. for toenails, 8 wks. for fingernails)

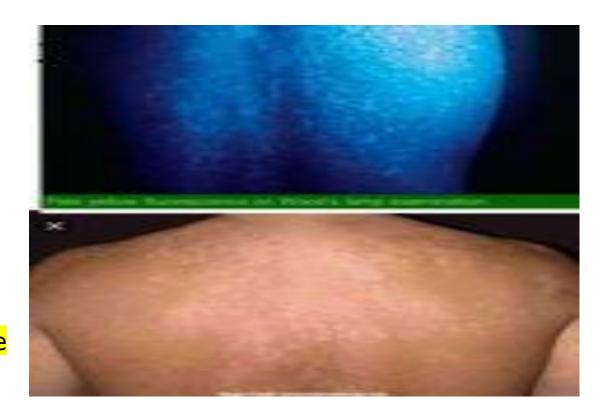


- Q3) Look at this picture carefully, then answer the following question?
- A) Most likely diagnosis?
- B) Which organism causes this disease?

- A) Pityriasis versicolor
- **B)** Furfur

## **EXPLANATION: -**

Malassezia furfur is a type of yeast that naturally resides on the skin of humans and some animals. Infections with pathogenic M. furfur occur on the trunk or the limbs and present clinically as pigmented macules that can merge in the form of scaling plaques. Many of these lesions resolve spontaneously in most patients.



- Characteristics: It is a unicellular organism, typically bottle-shaped, and varies in size from 1.5 to 4.5 micrometers wide and 2 to 6 micrometers long<sup>12</sup>.
- Associated Conditions: This yeast is linked to several skin conditions, including seborrheic dermatitis, dandruff, tinea versicolor (also known as pityriasis versicolor), and Malassezia folliculitis<sup>134</sup>.
- Pathogenicity: While it usually exists harmlessly on the skin, it can become pathogenic under certain conditions, leading to infections<sup>13</sup>.
- Treatment: Infections caused by Malassezia furfur are typically treated with topical antifungal medications such as ketoconazole, ciclopirox olamine, and zinc pyrithione<sup>13</sup>.

- Q4) Look at this picture carefully, then answer the following question?
- A) Describe?
- B) Most likely diagnosis?

- A) Paronychia
- **B)** Candida

## **EXPLANATION: -**

<u>Chronic paronychia</u> with alteration of nail plate shape and discoloration secondary to nail fold inflammation and microbial colonization's nail bed may

become infected as a result of onycholysis. <u>Candida and Pseudomonas</u> are the most common agents, where their growth is promoted by the damp warm character of the oncolytic space



- Q5) Look at this picture carefully, then answer the following question?
- A) Most likely diagnosis?
- B) Which organism causes this disease?
- C) Mention one condition that can lead to this?

- A) Candida albicans stomatitis
- **B)** Candida albicans
- C) AIDS

## **EXPLANATION: -**



<u>Candida</u> infection may occur in the flexures of infants, elderly or immobilized patients, especially under the breasts and abdominal skin folds. Yeast, including *C. albicans*, may be found in the mouth and vagina of healthy individuals.

Clinical lesions in the mouth – white buccal plaques or erythema – may develop. Predisposing factors include general debility, impaired immunity (including HIV), diabetes mellitus, endocrine disorders and corticosteroid treatment.

The majority of superficial *Candida* infections can be treated using topical antifungals including clotrimazole, miconazole and nystatin in various formulations including pastilles, lozenges, oral gel, mouthwashes, pessaries, creams and lotions. Many patients find systemic treatments more convenient such as fluconazole.

- Q6) A 28-year-old athlete male presented to the clinic with non-itchy, hyperpigmented, scaly patches on his back....
- A) Most likely diagnosis?
- B) Which organism causes this disease?

- A) Pityriasis versicolor
- **B)** Furfur

## **EXPLANATION: -**



#### <u>Pityriasis versicolor → M. Furfur</u>

- Upper back, neck, chest & arms. Areas fail to tan
- $\circ$  Well-defined macular lesions of variable color ('versicolor')  $\to$  hyper or hypo pigmented  $\to$  darker brown to pale tan
- Dex → seborrheic dermatitis, pityriasis rosea, guttate psoriasis and vitiligo
- o Tx → ketoconazole



- Q7) Patchy hair loss with erythema and scaling?
- A) What is the diagnosis?
- B) you should give antifungal topical or tablets?

- A) T. capitis
- **B)** Tablets

## **EXPLANATION: -**

#### Tinea capitis (scalp ringworm):

- $\circ$  Ringworm  $\to$  scaling margin with clear center  $\to$  annular or ring-shaped
- MC → Trichophyton tonsurans > Microsporum canis
- More in prepubertal children
- Single or multiple patches of alopecia, minimal scaling and inflammation.
- Black dots (broken-off hairs), multiple pustules
- Extensive alopecia with inflammation
- Kerion + occipital lymphadenopathy → inflamed, boggy, pustular lesion on the scalp
- $\circ$  Tx  $\Rightarrow$  **systemic antifungals**  $\rightarrow$  Oral griseofulvin or terbinafine
- Id reaction → popular/pustular widespread cutaneous eruption after systemic antifungal treatment
- $\circ$  Ddx  $\to$  scalp eczema/psoriasis, folliculitis, alopecia areata and seborrheic dermatitis



- Q8) Look at this picture carefully, then answer the following question?
- A) Describe?
- B) Most likely diagnosis?
- C) How to confirm the diagnosis in the clinic?

- A) round, erythematous plaque with central clearing and a scaling, raised border.
- **B)** Tinea corporis
- C) Wood's light

## **EXPLANATION: -**



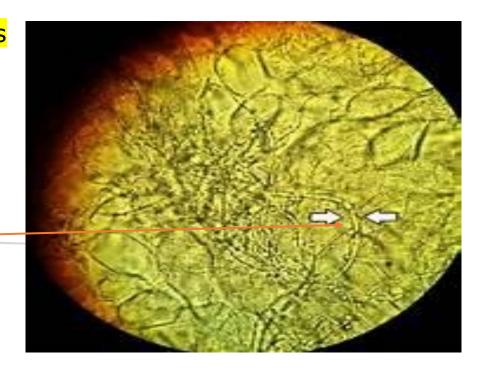
<u>Tinea corporis</u> also causes pruritus (body AND trunk). Lesions tend to be erythematous with a well-defined scaly edge. Terbinafine 1% cream is the most effective topical treatment for tinea corporis/cruris; other agents include miconazole, clotrimazole, ketoconazole, and econazole for two to four weeks.

Wood's light (UV light) → Microsporum infections "green-blue fluorescence".

<u>Microscopy(faster)+culture</u> →skin scrapings or Bx /scalp brushings/Nail clippings
 + KOH

Rapid PCR tests and ELISA

Look at this following picture: Tinea corporis under KOH test



- Q9) Look at this picture carefully, then answer the following question?
- A) What is this?
- B) Give 2 uses for it
- C) What type of light does it emit?

- A) woods light
- B) used to detect pigmentation disorders ex vitiligo, used also in fungal infxns
- C) UV light with the wavelength 365nm

#### ADDITIONAL INFORMATION ABOUT FUNGAL INFECTIONS

- <u>• Tinea incognito</u> → atypical fungal infection because of use of topical\systemic steroids
- <u>Seborrheic dermatitis (SD)</u>
- Allergic contact dermatitis due to the yeast Malassezia furfur
- Hair-bearing skin
- Itchy, adherent greasy scales
- DDx → atopic eczema/psoriasis
- $\circ$  Tx  $\rightarrow$  Ketoconazole shampoo or topical steroids ( $\pm$  miconazole)

#### <u>Feet (and hands)</u>

- Tinea pedis or athlete's foot → More in adults
- Public swimming pools or showers
- Very itchy, frequently occurs between the toes (esp. the fourth toe web)
- Dry, scaling rash with vesicles at the active margins

Tx→ topical antifungal (Terbinafine)



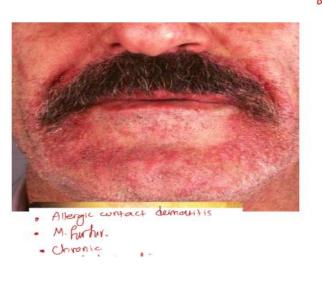
Pityriasis versicolor with hyperpigmented scaling.



Tinea cruris.



## Seborrhoeic dermatitis.



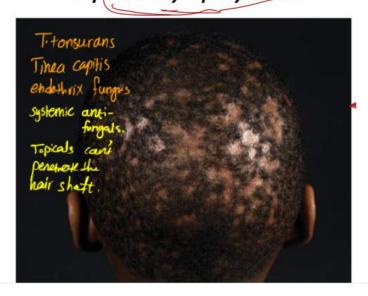
#### Tinea incognito.



## Toeweb tinea pedis.



# Patchy alopecia in tinea capitis caused by *Trichyophyton*



Tinea pedis.



Kerion in T. tonsurans tinea capitis.



Figure 16.5 Kerion in T. tonsurans tinea capitis.

## BACTERIAL INFECTIONS

- Q1) Look at this picture carefully, then answer the following question?
- A) Describe?
- B) Most likely diagnosis?

**Answers:** 

- A) Clusters of pustules and vesicles with golden crusts (honey-colored crusts) around the mouth,
- B) impetigo/ Staphylococcus aureus

## **EXPLANATION: -**



**Impetigo** caused by *Staphylococcus aureus and S. pyogenes* may be severe with large bullous lesions associated with strains producing exfoliative toxins. Impetigo is highly contagious and many family members may be infected. Mainly children, especially face and limbs. Yellow crusted lesions surrounded by normal skin.

#### TX:

Antiseptic wash
Topical antibiotic
Oral flucloxacillin or erythromycin

- Q2) Look at this picture carefully, then answer the following question?
- A) Mentions the difference between erysipelas and cellulitis?
- B) Causative agent of erysipelas:

- A) Cellulitis develops more slowly than erysipelas and has a poorly defined margin and marked regional lymphadenopathy.
- B) Strep. Pyrogens



## **EXPLANATION: -**

<u>Erysipelas</u> is caused by a Group A *Streptococcus* infection. Over approximately 48 h the inflammation spreads across the skin with a characteristic red, shiny, raised, spreading plaque with a well-demarcated edge

Occasionally, blistering may occur at the active edge; patients may have fever and malaise. the face (S. pyogenes from throat colonization) and lower legs are most frequently affected

- Q3) Look at this picture carefully, then answer the following question?
- A) What is this?
- B) Causative agent of this disease:

- A) Cellulitis
- B) S. pyogenes

## **EXPLANATION: -**

#### • Cellulitis

- Poorly defined margin and marked regional lymphadenopathy
- In cellulitis, S. pyogenes (also groups C/G Beta-hemolytic Streptococcus, or rarely S. aureus) organisms invade deeper tissues than those found in erysipelas.
- lower leg is the most common site affected
- Tx → intravenous benzylpenicillin



## Extending cellulitis.



Figure 13.9 Extending cellulitis.

## Erysipelas



## Lupus vulgaris.



Erysipelas.



## VIRAL INFECTIONS

Q1) Look at this picture carefully, then answer the following question?

**HINT: - A patient comes with itching...** 

what is the diagnosis?

**Answer: Molluscum contagiosum** 

## **EXPLANATION: -**

<u>Molluscum contagiosum</u>: The commonest poxvirus skin infection is usually acquired in childhood. It is highly contagious and is spread by direct contact often within families or schools, the incubation period is variable, between 14 days and 6 months. Flesh-colored, umbilicated papules are characteristics.

Therefore, painful and scarring treatments should be avoided if possible. Topical hydrogen peroxide (Crystalize) and cryotherapy can be used to cause local inflammation and speed up resolution in non-cosmetically vulnerable sites.

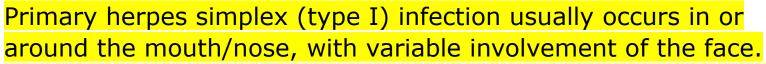


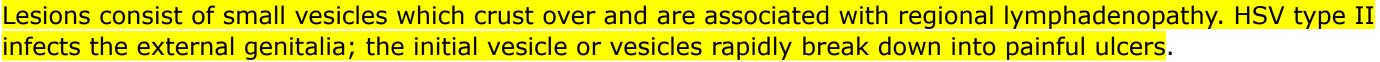
Q2) The Cause of this lesions in a 4 Years old child 4?

**Answer: Double stranded DNA virus** 

## **EXPLANATION: -**

HSV is spread by direct contact – 'shedding' from one host to another. Two viral subtypes exist: type I is associated mainly with facial lesions although the "angers and genitals may be affected. Type II is associated almost entirely with genital infections.





Eczema herpeticum is herpes simplex viral infection superimposed onto the skin affected by eczema (usually in atopic). there is frequently a history of close contact with an adult with herpes labialis (cold sore). TX: iv antiviral

#### **Herpes infection (HSV 1 + HSV 2)**

Enveloped dsDNA virus

## Q3) Herpes involved in pathogenesis of the following except?

- A) Burkitt lymphoma
- B) Kaposi sarcoma
- C) Erythema multiforme
- D) Pyoderma gangrenosum



- Q4) Look at this picture carefully, then answer the following question?
- A) What is this lesion?
- B) Describe this lesion
- C) What it is the most common trigger?

- A) Erythema multiforme
- B) Target lesions, with three areas of discoloration; dusky red centers, outer pale rim and red erythematous borders



## **EXPLANATION: -**

**Erythema multiforme (EM)** is an acute, self-limited skin condition characterized by target-like lesions. It often results from infections, medications, or other triggers. Sudden onset without significant prodromes. Within 48-72 hours, a disseminated, usually symmetrical, asymptomatic or slightly burning to itchy exanthema develops, which may also occur in groups in the elbow or knee area. The exanthema develops rapidly and relapses within a few days with a few to hundreds of lesions. A linear arrangement of the lesions is possible (Köbner phenomenon).

The most common infectious trigger is herpes simplex virus (HSV 1 or 2), which usually presents with a cold sore on the lip or sores/ulcers on the genitals or rarely herpetic whitlow. Other infectious triggers include Mycoplasma pneumonia (shortness of breath, cough, chest radiograph relatively normal), hemolytic Streptococcus (upper respiratory tract infection), adenovirus, coxsackievirus, Epstein-Barr virus, parvovirus B19, viral hepatitis, borreliosis and Neisseria meningitides.

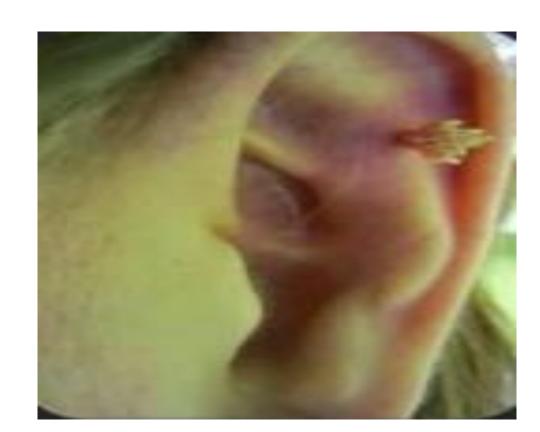


- Q5) Look at this picture carefully, then answer the following question?
- A) What is this?
- B) Causative agent of this disease:
- C) Best treatment for this lesion?

A) Filiform warts

B) HPV

## **EXPLANATION: -**



<u>Filiform warts</u> are a type of wart caused by certain strains of the human papillomavirus (HPV). They have a distinctive appearance, characterized by long, narrow projections that extend from the skin. Here are some key points about filiform warts:

#### <u>Appearance</u>

- Shape: Long, thin, and thread-like projections.
- Color: Can be yellow, brown, pink, or skin-toned.
- Location: Commonly found on the face, especially around the eyes, lips, and neck.

#### **Symptoms**

- Generally painless and asymptomatic.
- Can cause discomfort if located in sensitive areas, such as skin folds.

#### <u>Causes</u>

- Caused by HPV strains 1, 2, 4, 27, and 29.
- Spread through skin-to-skin contact, especially if the skin is broken.

#### **Treatment**

- Medical Procedures: Excision, burning (electrosurgery), cryotherapy (freezing with liquid nitrogen), and topical treatments.
- · Home Remedies: Some people use salicylic acid, but it's best to consult a doctor before trying home treatments.

Another wart: plain warts, plantar warts, genital warts, filiform warts

- Q6) Look at this picture carefully, then answer the following question?
- A) Describe?
- B) Most likely diagnosis?
- C) He should avoid contact with?

- A) Multiple vesicles with scalloped erythematous borders in dermatomal distribution on the trunk with erythematous background
- **B)** Shingles (herpes zoster)
- C) Pregnant ladies, immune compromised Patients.

## **EXPLANATION: -**

**VZV** is a herpes virus that causes chicken pox (the primary illness), which is characterized by a prodromal illness for about 2 days followed by crops of popular-vesicular lesions that eventually crust over and heal. Subsequently shingles (reactivation) may occur as the virus remains latent in the sensory nerve ganglia. the thoracic nerves are most commonly affected. In shingles, pain, fever and malaise may precede the rash which is characterized usually by its dermatomal distribution





## Herpes 'cold sore'.



Figure 14.2 Herpes 'cold sore'.



Figure 14.4 Eczema herpeticum.

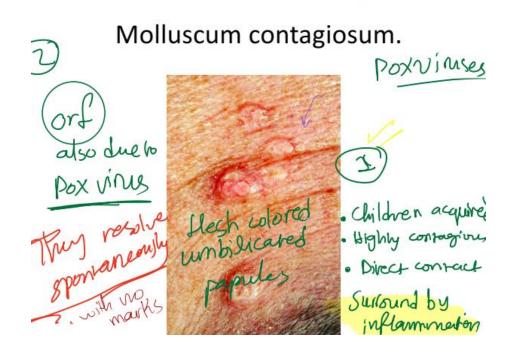


Figure 14.12 Orf.

# Multidermatomal varicella zoster virus (shingles).

carbamerapine
salapentin

For pain.





# PURITIES AND SCABIES

- Q1) Case of itching (at night), his wife affected also, photo of multiple papules in hand....
- A) Diagnosis?
- B) Most likely diagnosis?
- C) What is the management?

#### **Answers:**

- A) (Mostly scabies)
- B) Sarcoptic scabiei
- **C) Below...**





### **EXPLANATION: -**

#### Scabies (Sarcoptes scabiei)

- intense itching, keep pt awake /// female mite burrows into the epidermis and lays eggs
- close personal contact (at least 15 min of skin-to-skin contact) with an infected individual.
- o within a family, infants in playgroups, & through regular nursing of elderly Pts.
- Sx after 2 weeks (immune Rx to proteins in the mites), carry 10 adult mites
- There may be very few burrows, though the patient has widespread itching.
- Distribution  $\rightarrow$  fingers, wrists, nipples, abdomen, genitalia, buttocks and ankles.
- Itching may persist even after all mites have been eliminated;
- itching papules on the scrotum and penis are particularly persistent
- Dx  $\rightarrow$  several individuals in the same household/institution, affected simultaneously by rash that is intensely itchy at night + widespread popular rash
- o burrows can be seen (in fingers or genitals), linear palpable ridges with black speck
- Scratch by sterile needle → microscopy
- <u>Scabies in children</u> → erythematous cutaneous papules and nodules in the axillae and on the soles of the feet,
   Classic burrows not seen
- <u>Crusted scabies</u> → dry scaly skin rashes, immunosuppressed or elderly, hundreds of mites and no itch (week immunity)
- Mgt
- First-line treatment for scabies is 5% permethrin (not available in Jordan) cream left on overnight, two
  applications 7 days apart. Adults apply from the neck downwards; babies/infants apply to all the skin.
- Second-line → malathion (lotion), Ivermectin (oral), Benzyl benzoate (available in Jordan)

- Q2) Look at this picture carefully, then answer the following question?
- A) What are these white things called?
- B) What is your diagnosis?

- A) Nits
- B) Head lice

### **EXPLANATION: -**

#### <u>Lice</u>:

#### **Head lice**

- Children are the most common hosts. Girls > boys
- transmitted by head-to-head contact, and on combs
- Sx → Mild itching
- ullet Dx o inspection of the scalp using Fine-toothed combs o adult lice and nits
- Mgt  $\rightarrow$  First-line treatment is permethrin 1–5% crème rinse applied to dry hair and left on overnight. This should be repeated after 7 days

#### **Body lice**

- Vector for → Bartonella Quintana (agent of trench fever, bacillary angiomatosis and endocarditis) and Rickettsia prowazekii (agent of typhus)
- Affects poorer people, lice live in the host's clothes and bite the skin.(Dx  $\rightarrow$  inspect skin and clothes)
- popular eruption with excoriations
- Mgt → Wash clothing in hot water then dry in sun
- potent topical steroid plus topical antibiotic (if infected)



- Refer to cardiologists if endocarditis is suspected.
   Pubic lice "crab lice"
- pubic, axillary and eyelash areas ⇒ check for sexually transmitted diseases
- Mgt → topical permethrin 5% to skin from the neck downwards, left on overnight, repeated after 7 days
- If eyelashes involved → petrolatum only
- Q3) Look at this picture carefully, then answer the following question?
- A) Name 5 causes of purities without skin changes:
- B) Write down 5 investigations:
- C) Name 5 causes of purities with skin changes?

A) (HIV, hookworm), endocrine (DM, myxedema, hypothyroid), metabolic (CKD, liver disease), hematology (lymphoma, IDA, PCV), drugs(opioids)

B) CBC, Ferritin, thyroid function, LFT, KFT, urine analysis, serum protein electrophoresis, skin bx, chest Xray,

C) Cutaneous lymphoma. Scabies, body lice, xerosis, allergic drug eruptions.



## ECZEMA

Q1) Name of the material that cause allergy contact dermatitis:

**Answer: PPD** 

## **EXPLANATION: -**

PPD (para-phenylenediamine) is indeed a common allergen that can cause allergic contact dermatitis. It's often found in hair dyes, black henna tattoos, and some textile dyes

Q2) Look at this picture carefully, then answer the following question? **Diagnosis?** Pityriasis alba

## **EXPLANATION: -**

<u>Pityriasis alba</u> is a variant of atopic eczema in which pale patches of hypopigmentation develop on the face of children.





Q3) Look at this picture carefully, then answer the following question? **Diagnosis?** 

**Answer: Infantile eczema** 

- Q4) Look at this picture carefully, then answer the following question?
- A) What is the name of this test?
- B) Which type of hypersensitivity reaction do we test for?
- C) Mention 3 difference between allergic dermatitis and irritant contact dermatitis?

**Answers:** 

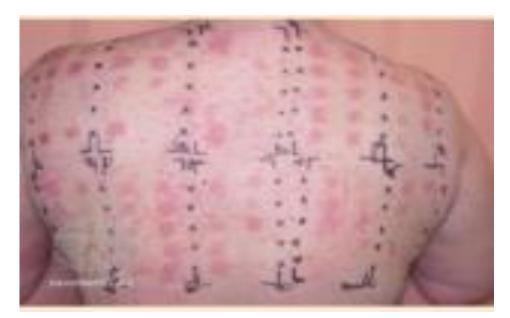
A) Skin patch test

B) Type4

C)BELOW...

## **EXPLANATION: -**





	Irritant contact dermatitis	Allergic contact dermatitis	
People at risk	Anyone, esp if repeated exposure	Genetically predisposed + previously sensitized	
Mechanism	Direct tissue trauma → chemical or physical irritant.	Type IV delayed hypersensitivity	
Previous contact	Not required	Required	
Conc of agent	High, dose related, severity varies with the quantity, concentration and length of exposure	May be low, threshold dose; all or nothing	
Risk if atopic	Increased	Decreased	
Histology "skin infiltration"	Neutrophils	Lymphocytes	
Symptoms	Itchy or burning	Intensely itchy	
Morphology	Erythema, Slight scaling, and fissuring	Erythema, oedema and vesicles. Lichenified (if chronic).	
Demarcation + Distribution	Sharp, limited to area of exposure	Sometimes sharp -Activation of previously sensitised sites at a distant skin site	
Onset	No predictable time interval between contact and dermatitis Typically → minutes to hours	48–96 h between contact and dermatitis -Typically → hours to days -Persistence of the allergy	
Dx test	Patch test -ve	Patch test +ve	

Q5) This man has had eczema for a long time?

Name the process that has occurred

**Answer: Latensification** 

### **EXPLANATION: -**

#### **Latensification:**

- a. Thickening of the epidermis seen with exaggeration of normal skin lines
- b. It is usually due to chronic rubbing or scratching of an area
- Q6) Look at this picture carefully, then answer the following question?

#### **HNT: -History of atopy in the family**

- A) what do we call it when the skin is thickened from scratching?
- B) 3 causes of exogenous eczema
- C) mother asks you what are the chances his condition will be resolved by the time he finishes school?

#### **Answers:**

- A) Latensification
- B) Allergic dermatitis, irritant contact dermatitis, occupational dermatitis, photodermatitis
- C) 90% of the cases spontaneously remit by puberty





- Q7) Look at this picture carefully, then answer the following question?
- A) what is this type of reaction?
- B) When you suspect the reaction will appear after re-application of stoma dressing?
- C) How you confirm your diagnosis?

- A) Allergic contact dermatitis
- **B) 48-96 hours**
- C) skin patch test
- Q8) A patient with chronic atopic dermatitis.
- A) Name this lesion?
- B) Give 2 poor prognostic factors (will not resolve with adolescence)?
- C) Give 4 types of endogenous eczema?

#### **Answers:**

- A) Latensification
- B) presents at very young age with extensive disease Strong family history and have associated asthma or multiple food allergies.
- C) Atopic dermatitis, pityriasis alpha, asteatosis eczema, pompholyx eczema





#### <u>ADDITIONAL INFORMATION ABOUT PSORIASIS</u>

#### **Definition**

- Eczema includes atopic dermatitis, contact allergy, varicose eczema, pompholyx and discoid eczema
- Inflamed, dry, occasionally scaly and vesicular skin rashes

#### **Clinical features**

- Acute or chronic
- Acute → erythema, vesicular/bullous lesions and exudates
- Golden crusting → staph or strep
- Chronic → scaling, xerosis (dryness) and latensification
- Itchy  $\rightarrow$  scratching  $\rightarrow$  excoriation marks, loss of skin surface, secondary infection, exudates and latensification (thickening of skin where surface markings become more prominent).
- Endogenous eczema (constitutional)
- Atopic dermatitis "AD"
- Facial then flexural limb, onset → Childhood
- 90% of the cases spontaneously remit by puberty
- Poor prognostic factor ( AD continue to adult life)
- strong family history, present at a very young age with extensive disease and have associated asthma/multiple food allergies
- Symptoms→ Itchy, red, swollen, cracked skin
- Intensely itchy → poor feeding → failure to thrive
- Exacerbating factors → stress, infections, teething, food allergies, Skin Irritation, Climate, increased Sweating, House dust mite, vaccination
- Associated asthma/multiple food allergies
- Pityriasis alba → pale patches of hypopigmentation on the face

- Juvenile plantar dermatosis→ dry cracked skin on the forefoot in children
- Discoid eczema → Sauers
- Pompholyx eczema → painful itching vesicles on the fingers, palms and soles
- $\circ$  Venous (stasis) eczema  $\to$  lower legs, venous insufficiency, brown hemosiderin pigmentation esp. on the medial ankle ulcers,  $Tx \to compression$ .
- Seborrheic eczema
- Secondary changes
- Eczema herpeticum → HSV, Tx → acyclovir
- Lichen simplex
- Asteatosis eczema → older people with dry skin
- Unilateral eczema of the areola → Adpaper's disease of the nipple
- Investigations of eczema
- Skin swabs, Nasal swabs, scrapings (if fungal infection is suspected)
- Eosinophilia and raised IgE
- Skin prick, RAST (radioallergosorbent testing) → to determine specific allergies
- Skin biopsy
- ABPI (ankle brachial pressure index) → Varicose eczema
- Exogenous ( external factor)
- Contact dermatitis
- Allergic contact dermatitis
- Irritant contact dermatitis

#### General management of eczema

- Emollients (moisturizing creams) → for dry skin
- Cleansers →
- Normal soap not used
- Topical steroids → mainstay of treatment for active eczema
- Applied once or twice daily to the affected skin only.
- Ointments are better than creams
- Mild eczema or face and groin → Very low potency steroids ( hydrocortisone )
- Moderate to severe → potent topical steroids (betamethasone)
- Immunomodulators "calcineurin inhibitors"→ Tacrolimus
- Occlusion → Covering topical therapy with bandages, 'wet-wraps' and dressings
- Antibiotics → topical or systemic , for infected eczema
- Phototherapy → for generalized eczema
- Systemic therapy "immunosuppressants"
- Oral prednisolone → for acute management
- Azathioprine, cyclosporine, mycophenolate mofetil and methotrexate → for long-term management

## Chronic atopic dermatitis.



Figure 4.1 Chronic atopic dermatitis.

## Acute PPD allergy in a 'henna' tattoo.



## Plantar dermatitis.

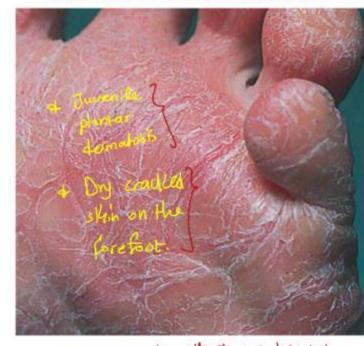


Figure 4.7 Plantar dermatitis juventile plantour dermatosis.

## Eczema herpeticum.



Figure 4.8 Eczema herpeticum.

## Discoid eczema.



# CONNECTIVE TISSUE DISEASES

- Q1) A Case of 70 yrs old man with loss of appetite and loss of wt. ...
- A) what is the name of this rash?
- B) Most likely diagnosis
- C) Mention other 3 skin conditions can be seen with this disease Answers:
- A) Heliotrope rash
- **B)** Dermatomyositis
- C) Gottron sign/ shawl sign/ V sign

### **EXPLANATION: -**



#### **Dermatomyositis**

- skin, muscle "discomfort and weakness in proximal limbs" and blood vessels.
- Signs
- $\circ$  Heliotrope rash  $\rightarrow$  purple hue on the upper & lower eyelids, cheeks and forehead.
- shawl sign & v sign→ anterior 'V' and posterior "shawl "aspect of the neck
- $\circ$  Gottron's papules  $\to$  dorsal surface of the fingers (esp. joints) may be affected by the erythematous eruption and purplish papules
- Ragged cuticles and dilated nailfold
- Investigations

- o creatine phosphokinase (CK), ESR, anti-Jo-1 antibody, and skin and muscle biopsy.
- Electromyography and MRI→ myositis.

Treatment with high dose systemic corticosteroids ⇒ or cyclophosphamide, azathioprine, methotrexate and

mycophenolate mofetil

D)On examination you suspect malignancy, what is the primary diagnosis for this lesion?

**Answer:** Paraneoplastic dermatomyositis

## **EXPLANATION: -**

Paraneoplastic dermatomyositis is a form of dermatomyositis linked to underlying malignancies, such as breast, ovarian, or lung cancer. One of the hallmark symptoms of dermatomyositis, including its paraneoplastic form, is the heliotrope rash. This rash is characterized by a violet or purple discoloration around the eyes and upper eyelids.

The heliotrope rash is often accompanied by other skin manifestations and muscle weakness, which are typical of dermatomyositis. Proper diagnosis and treatment are crucial for managing symptoms and improving outcomes.

Q2) Thickening of the skin with accentuation of normal skin markings; it is a result of chronic scratching or rubbing, this is called\_\_\_\_\_?

**Answer:** 

**Latensification** 

## **EXPLANATION: -**

#### **Latensification:**

- a. Thickening of the epidermis seen with exaggeration of normal skin lines
- b. It is usually due to chronic rubbing or scratching of an area



- Q3) Look at this picture carefully, then answer the following questions?
- A) What is the diagnosis?
- B) If left untreated what a serious complication?
- C) Give 2 another eruption that ca effect genitalia?

- A) Lichen sclerosis (LS)
- B) Squamous cell carcinoma (SCC).
- C) Stevens—Johnson syndrome (SJS) and toxic epidermal necrolysis (TEN)



#### Lichen sclerosis (LS)

- itchy eruption which mainly affects the genital and perineal regions in women
- well-demarcated atrophic patches and plaques with a distinctive ivory white color
- loss of normal genital architecture
- associated with the development of squamous cell carcinoma (SCC).
- Tx → intermittent potent topical steroids



Q4) Look at this picture carefully, then answer the following questions?

A) What is the diagnosis?

**Answer:** 

**Discoid lupus** 

**EXPLANATION: -**

### **Discoid Iupus erythematosus (DLE):**

- photosensitive disorder, well-defined coin shaped erythematous lesions with atrophy, scaling and scarring occur on the face, scalp (alopecia, follicular plugging)
- Tx → potent and super-potent topical steroids to limit scarring



- Q5) Look at this picture carefully, then answer the following questions?
- A) What is the diagnosis?

**Vasculitis** 

### **EXPLANATION: -**

#### **Cutaneous Vasculitis**

- Symptoms → pain in the skin, general malaise, fever, abdominal pain, weight loss neuropathies and arthropathy.
- ullet Morphology o non-blanching skin eruption and erythema (mostly in lower limbs).
- macular or palpable purpura, blistering, ulcerated and necrotic
- Possible causes
- Drug hypersensitivity
- Hepatitis, Endocarditis, Inflammatory bowel disease
- Connective tissue disease
- Coagulopathies /// Behçet's syndrome /// Kawasaki disease
- Sarcoidosis
- Dx → skin biopsy for histology and immunofluorescence (IMF)
- Tx → topical steroids (mild-moderate cases), systemic steroids (severe cases)

Type III (immune complex mediated) reactions lead to cutaneous vasculitis



- Q6) Look at this picture carefully, then answer the following questions?
  - A) What is the diagnosis?
  - B) What is the nail change in this picture?

- A) Lichen planus (LP)
- **B)** Lichen ridges

## **EXPLANATION: -**

#### **Lichen planus (LP)**:

- itchy eruption, shiny purple-colored flat-topped papules, on the wrists and ankles.
- White lines called Wickham's striae may appear on the surface of the lesions
- clusters or in linear scratches/surgical scars (Koebner phenomenon)
- black skin → hyperpigmentation.
- May affect the mouth, labia minora, nails "linear ridges" or scalp "scarring alopecia"
- Can cause bullous lesions
- Variants → hypertrophic, bullous, oral LP
- Tx → potent topical steroids





- Q7) A patient develop this condition after cold exposure, he also has calcinoses, esophageal problems, skin tightening, and some telangiectasia.
- A) What is this phenomenon?
- B) How would you treat this phenomenon?
- C) What is your diagnosis?

- A) Raynaud's phenomenon
- B) Hand warming and calcium channel blockers
- C) (Systemic sclerosis)

### **EXPLANATION: -**

### Raynaud's phenomenon:

- If with systemic disease → Raynaud's disease
- o systemic sclerosis, mixed connective tissue disease (MCTD), SLE and cryoglobulinemia
- cold exposure → white (vasospasm), then blue (cyanosis) and finally red (hyperemia)
- Distribution → mostly fingers → bilateral and symmetrical
- Tx→ keep warm, nifedipine and leprosy (prostacyclin analogue).



#### Systemic sclerosis (Sc)

- Extensive sclerosis (collagen deposition and fibrosis) of the subcutaneous tissues in the fingers and toes "tethering of skin" + around the mouth (scleroderma)+ lung and kidneys.
- Raynaud's phenomenon (fingers) and telangiectasia (mouth and fingers)
- limited (ISSc) or disseminated (discs)
- 90% → have at least one positive ANA
- CREST syndrome
- C Calcinosis cutis → painful chalky-white material at fingertips
- R Raynaud's phenomenon
- E Esophageal dysmotility
- S Sclerodactyly → localized thickening and tightness of skin of fingers or toes
- T Telangiectasia
- Morphea → benign localized systemic sclerosis, discolored firm skin . typically, in abdomen, chest or back
- $\circ$  If in head "frontoparietal area  $\rightarrow$  ('end coup de sabre'), alopecia and groove
- MX  $\Rightarrow$  Calcitriol  $\rightarrow$  sclerodactyly, laser  $\rightarrow$  facial telangiectasia.

- C Calcinosis cutis
- R Raynaud's phenomenon
- E Oesophageal dysmotility
- S Sclerodactyly
- T Telangiectasia

- Q8) A 5 years old boy presented to er with this rash on his leg. He had sore throat for 4 days ago...
- A) What is the diagnosis?
- B) Mention 3 non-cutaneous manifestations associated with this disease?

- A) Henoch-Schoenlein purpura (HSP)
- B) Abdominal pain, nephritis, arthralgia

## **EXPLANATION: -**



#### Henoch-Schönlein purpura

- preceding upper respiratory tract symptoms and a positive ASOT.
- The skin, kidneys (IgA nephropathy, haematuria), GI tract (abdominal pain) and joints are mainly affected.
- Dx→ Skin/renal biopsy → deposition of IgA
- $\bullet$  Tx  $\to$  supportive, resolve spontaneously (if not, systemic steroids are used, which do not treat renal disease)

Q9) what are the mucosal lesions Called?

**Answer:** Wickhams striae

## **EXPLANATION: -**

Wickham's striae are fine, white, lacy lines often seen on the surface of lesions in lichen planus, a chronic inflammatory condition. These striae are most commonly found on the skin and mucous membranes, such as the inside of the mouth. They are a hallmark feature of lichen planus and can help in its diagnosis.



Q10) Look at this picture carefully, then answer the following questions?

- A) What is this?
- B) What are the types of cutaneous lesions in SLE?

#### **Answers:**

A) DLE

B) systemic, subacute cutaneous, discoid, neonatal

### **EXPLANATION: -**

#### **Discoid lupus erythematosus (DLE):**

- photosensitive disorder, well-defined coin shaped erythematous lesions with atrophy, scaling and scarring occur on the face, scalp (alopecia, follicular plugging)
- ullet Tx o potent and super-potent topical steroids to limit scarring



#### Lupus erythematosus (LE)

- four main clinical variants → systemics", subacute, discoid and neonatal
- $\bullet$  75%  $\to$  skin involvement, most commonly an erythematous 'butterfly' distribution rash on the face 16
- Tx of SLE→ Prednisolone, or immunosuppressant drugs such as azathioprine
- SLE Dx (four of the following)

malar rash	discoid plaques	photosensitivity
serositis	arthritis	mouth ulcers
neurological disorders	haematological changes	renal changes
immunological changes	antinuclear antibodies	

#### Subacute cutaneous lupus erythematosus (SCLE)

- white women aged 15 to 40, less systemic involvement
- skin lesions that are scaly and evolve as polycyclic annular lesions or plaques ,in sun-exposed areas
- Risk of developing SLE→ 5%
- Tx → sun avoidance and sunscreen and topical corticosteroids

#### Discoid lupus erythematosus (DLE)

- photosensitive disorder, well-defined coin shaped erythematous lesions with atrophy, scaling and scarring occur on the face, scalp (alopecia, follicular plugging)
- Tx → potent and super-potent topical steroids to limit scarring

#### Neonatal lupus erythematosus

- transplacental passage of anti-Ro/La
- Annular scaly lesions on the face/scalp
- Risk congenital heart block

- Q11) Look at this picture carefully, then answer the following questions?
- A) What is this?
- B) Give 1 DDx?
- C) How to differentiate between the DDx with one simple clinic tool?

- A) Vitiligo
- B) Post-inflammatory hypopigmentation (not pityriasis alba nor pityriasis versicolor because of the distribution)
- C) Woods light (vitiligo will appear yellow-green or blue under the Wood's lamp)



### **EXPLANATION: -**

Localized depigmentation is most commonly seen in vitiligo; a family history of the condition is found in one-third of the patients. In the sharply demarcated, symmetrical macular lesions there is loss of melanocytes and melanin. There is an increased incidence of organ-specific antibodies and their associated diseases

Autoimmune associations with vitiligo

- Thyroid disease
- Myasthenia gravis
- Pernicious anemia
- Alopecia areata
- Hypoparathyroidism
- Halo naevus
- Addison's disease

- Morphea and lichen sclerosis
- Diabetes.
- Q12) Pregnant woman presented with this, you suspected SCLE...
- A) Risk of developing SLE?
- B) What risk is on baby?
- C) Mention 3 other causes of photosensitivity?
- **D)** Medications?

A) 5%

- B) Neonatal SLE (heart block)
- C) (egg, tetracycline), genetic (egg, xeroderma pigmentosum), metabolic (egg, porphyria cutanic trade)

## **EXPLANATION: -**

#### Subacute cutaneous lupus erythematosus (SCLE)

- white women aged 15 to 40, less systemic involvement
- skin lesions that are scaly and evolve as polycyclic annular lesions or plaques, in sun-exposed areas
- Risk of developing SLE→ 5%
- Tx → sun avoidance and sunscreen and topical corticosteroids



Q13) Look at this picture carefully, then answer the following questions?

#### **Diagnosis? Drug induced vasculitis**

## **EXPLANATION: -**

Drug-induced vasculitis is an inflammatory condition of the blood vessels triggered by certain medications<sup>12</sup>. It can affect vessels of various sizes, including small, medium, and large vessels<sup>3</sup>. Common drugs associated with this condition include antibiotics, thiazide diuretics, phenytoin, and allopurinol<sup>4</sup>.



Symptoms can vary but often include fever, arthritis, and skin manifestations like palpable purpura<sup>3</sup>. The condition typically resolves upon discontinuation of the offending drug<sup>3</sup>.

Q10) Name the primary lesion?

- B) write its definition?
- C) write down 3 treatments:

#### **Answers:**

- A) Patch
- B) change in color without any elevation above the surface of surrounding skin greater than 2cmC) calcineurin inhibitors, steroids, psoralens,
- <u>immunomodulators</u>



Q14) Look at this picture carefully, then answer the following questions?

A) what is this?

B) Diagnosis?

C) Describe?

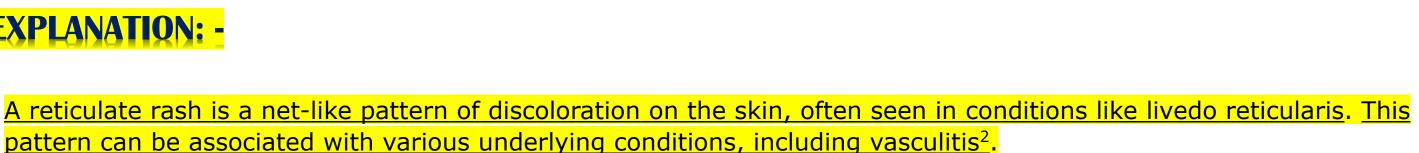
**Answers:** 

A) Reticulate rash

B) Vasculitis (livedo reticulitis)

C) Mottled reticulated vascular pattern that appears as a lace-like purplish discoloration of the skin.

## **EXPLANATION: -**



Vasculitis is an inflammation of the blood vessels that can cause a variety of skin manifestations, including reticulate rashes. When vasculitis affects the skin, it can lead to symptoms such as palpable purpura, ulcers, and nodules. The reticulate pattern occurs due to changes in blood flow and vessel inflammation.



<u>Livedo reticularis</u> is a common skin finding consisting of a mottled reticulated vascular pattern that appears as a lace-like purplish discoloration of the skin. The discoloration is caused by reduction in blood flow through the arterioles that supply the cutaneous capillaries, resulting in deoxygenated blood showing as blue discoloration. This can be a secondary effect of a condition that increases a person's risk of forming blood clots, including a wide array of pathological and nonpathological conditions.

Livedo reticularis is diagnosed by its clinical appearance and history. No further test or examination confirms idiopathic livedo reticularis. However, further investigations may be undertaken where an underlying cause is suspected such as skin biopsies, or blood tests for antibodies associated with antiphospholipid syndrome or systemic lupus erythematosus

Systemic lupus erythematosus: butterfly rash.





Discoid lupus erythematosus.



Subacute lupus erythematosus.



Lichen Planus



Vasculitis



Systemic Sclerosis



Morphea



Calcinosis cutis.



Dermatomyositis of the hands.



# CUTANEOUS MANIFESTATIONS OF SYSTEMIC DISEASES

- Q1) Look at this picture carefully, then answer the following questions?
- A) What is the diagnosis?

**Ans: Polymorphous eruption of pregnancy (PEP)** 

## **EXPLANATION: -**

Polymorphous eruption of pregnancy (PEP) (previously named

pruritic urticarial papules and plaques of pregnancy, PUPPP) is a pruritic erythematous rash that usually starts in the

striae of the abdomen during the third trimester and can become widespread. the condition does not affect the baby.

It usually resolves post-partum and rarely recurs in subsequent pregnancies with the same partner. Topical (and occasionally systemic) steroids usually provide symptomatic relief





Q2) Look at this picture carefully, then answer the following questions?

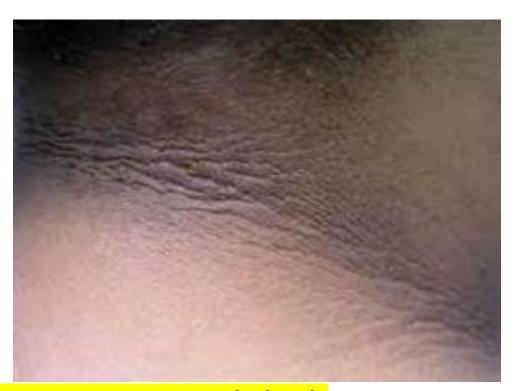
A) This sign is Associated with:

**Ans: Gastric cancer** 

## **EXPLANATION: -**

Acanthosis nigricans AN is asymptomatic velvety thickening of the skin characteristically affecting the posterior and lateral aspects

of the neck, axillae and arm flexures; it appears as dark symmetrical plaques. the most common association is obesity, and with weight reduction the AN resolve. Syndromic AN is subtyped into Type A, which is associated with insulin resistance in young black women with hirsutism and polycystic ovarian syndrome, and Type B, which is associated with autoimmune conditions such as diabetes, thyroid disease and lupus. Antibodies to insulin receptors may be detected in Type B. More extensive and rapidly evolving AN, particularly involving the lips/tongue/palms may herald underlying *malignancy, particularly of the gastrointestinal (GI)* 



Q3) Look at this picture carefully, then answer the following questions?

A) What is the diagnosis?

**Answer: Albinism** 

## **EXPLANATION: -**

<u>Albinism</u> is inherited through a recessive gene and may manifest as diminished or loss of pigment in the skin, hair and eyes. Other genetic conditions with loss of skin pigment include piebald's (, phenylketonuria and tuberous sclerosis.

Albinism (tyrosinase negative type) Tyrosinase





Figure 10.16 Piebaldism.

Q4) Most common causative organism?

## **EXPLANATION: -**

Erythema nodosum (EN) consists of tender/painful subcutaneous erythematous nodules on the shins (arms can also be affected) secondary to a hypersensitivity reaction leading to inflammatory panniculitis (inflammation in the adipose tissue).

The lower leg lesions usually evolve over a few days following systemic symptoms such as fever and malaise and last for weeks or months depending on the trigger.

Infectious causes of EN include Streptococcus, Mycoplasma process of EN include Streptococcus, Mycoplasma



Other non-infectious triggers include medications, inflammatory bowel disease, sarcoidosis, pregnancy, Behçet's, and Hodgkin's disease. In approximately 50% of cases there is no obvious cause determined. Management involves treating or removing the underlying cause, elevation and compression of the lower legs and non-steroidal anti-inflammatory drugs (NSAIDs).

Q5) Look at this picture carefully, then answer the following questions?

# A) what is your diagnosis?

**Answer: Pyoderma gangrenosum** 

# **EXPLANATION: -**

Pyoderma gangrenosum a rapidly developing necrotic ulcer with surrounding induration, may occur in association with ulcerative colitis or rheumatoid vasculitis in severe cases of pyoderma gangrenosum, systemic corticosteroids are usually required often with additional ciclosporin and even infusions of Infliximab may be needed in recalcitrant cases. An underlying cause for the pyoderma gangrenosum should be sought.

Pyoderma gangrenosum – hematological malignancy, inflammatory bowel disease, rheumatoid arthritis, monoclonal gammopathy





- Q6) Patient came to the clinic with this manifestation due to sun exposure?
- A) The scientific term for this phenomenon:
- B) Name 3 diseases that may cause it?

#### **Answer:**

- A) Photosensitivity
- B) Xernona pigmentosa, albinism, seborrheic dermatitis, contact dermatitis



# BULLOUS DISEASES

- Q1) Look at this picture carefully, then answer the following questions?
- A) What is the diagnosis?
- B) Level of epidermal?

**Answers:** 

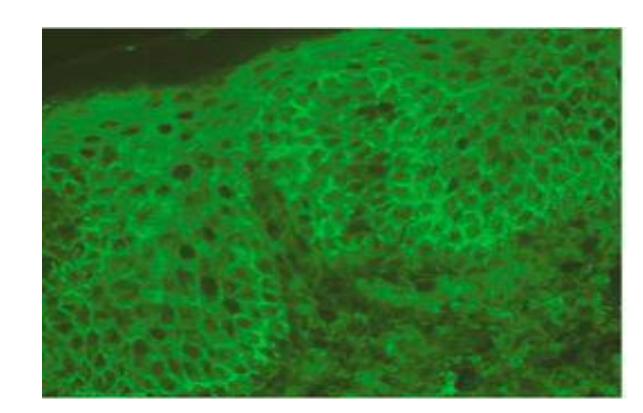
- A) Pemphigoid vulgaris
- B) Sub epidermal

# **EXPLANATION: -**

**Pemphigus Vulgaris** 

- acute, widespread, painful
- oral lesions (70%),
- Mucous membrane involvement may precede cutaneous signs
- rubbing apparently normal skin causes the superficial epidermis to slough off (Nikolsky sign positive). (Autoimmune disease)
- Paraneoplastic pemphigus → non-Hodgkin's lymphoma or chronic lymphocytic leukemia

The management of pemphigus vulgaris has been transformed by the use of rituximab which is a biological agent with anti-CD20 activity that depletes antibody-producing B-cells.



Histology features: Suprabasal split (basal cells remain attached to basement membrane, looking like 'tombstones').

Immunofluorescence features: IgG deposited on surface of keratinocytes in a 'chicken-wire' pattern.

- Q2) Look at this picture carefully, then answer the following questions?
- A) Describe this picture?
- B) What is the diagnosis?
- C) How would you confirm the diagnosis?
- D) Give 5 conditions where vesicles/bullae occur?

#### **Answers:**

- A) Multiple tense bullae
- B) Bullous pemphigoid
- C) Histopathology and immunofluorescence
- D) bullous pemphigoid, pemphigus vulgaris, dermatitis herpiformis, infections, pompholyx eczema, fixed drug eruption





# **EXPLANATION: -**

#### **Bullous pemphigoid**

- on a background of dermatitis or normal skin
- Prolonged prebullous period
- flexural sites on the limbs and trunk.
- Mucous membrane involvement (20%)
- Blisters heal without scarring
- If in children → after vaccination, face, palms and soles

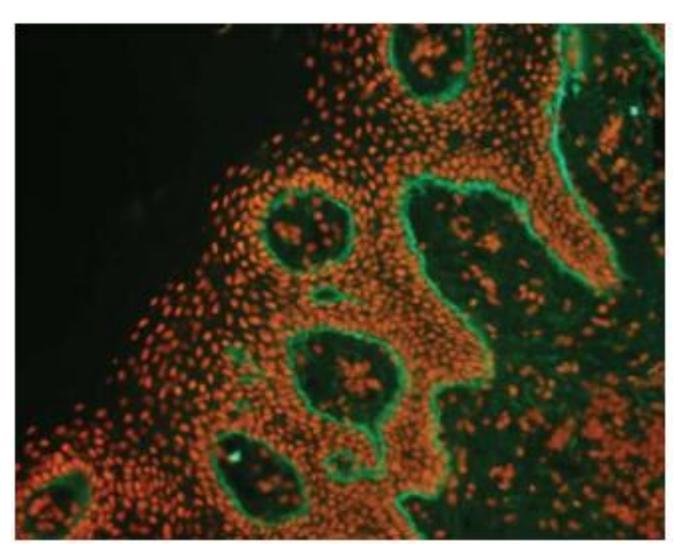
<u>Bullous pemphigoid</u> → IgG autoantibodies that target the basement membrane cells (hemidesmosome proteins)

<u>Histology features</u>: Subepidermal blister containing mainly eosinophils

<u>Immunofluorescence features</u>: Linear band of IgG at the basement membrane zone

Bullous pemphigoid presenting in an elderly patient may respond to intensive potent topical steroids to affected skin. Reducing courses of systemic corticosteroids can be helpful in the short term, but most patients are maintained

on azathioprine or minocycline (anti-inflammatory properties). Other treatments used include methotrexate, cyclophosphamide, mycophenolate mofetil and the anti CD-20 biological agent rituximab.



# Q3) Histological features?

# **EXPLANATION: -**

#### **Dermatitis herpetiformis (DH)**

- intensely pruritic autoimmune blistering
- Most patients do not report any bowel symptoms unless prompted but may experience bloating and diarrhea
- small bowel investigation reveals abnormalities (villous atrophy, raised lymphocyte count) in 90% of patients. Increased risk of small bowel lymphoma
- Tx →strict lifelong gluten-free (no wheat, rye & barley), if failed → Dapsone & sulphapyridine
- Dermatitis herpetiformis
- o intensely itchy, erythematous and blistering papules, elbows, knees and buttocks
- o gluten-sensitive enteropathy, small bowel lymphoma

Similarly, a patient with underlying coeliac disease may First present with blistering on the elbows (dermatitis herpetiformis).



Table 8.2 Clinical features of immunobullous disorders.

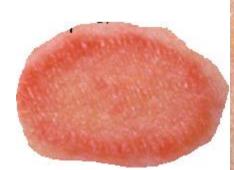
Immunobullous disorder	Typical patient	Distribution of rash	Morphology of lesions	Mucous membrane involvement	Associated conditions
Bullous pemphigoid	Elderly	Generalised	Intact blisters	Common	None
Mucous membrane pemphigoid	Middle aged or older	Varied	Erosions, flaccid blisters, scarring	Severe and extensive	Autoimmune disease
Pemphigoid gestationis	Pregnant	Periumbilical	Intact blisters, urticated lesions	Rare	Thyroid disease
Pemphigus vulgaris	Middle aged	Flexures, head	Flaccid blisters, erosions	Common	Autoimmune disease
Dermatitis herpetiformis	Young adults	Elbows, knees, buttocks	Vesicles, papules, excoriations	Rare	Small bowel enteropathy (gluten-sensitive), lymphoma
Linear IgA	Children and adults	Face and perineum (children) Trunk and limbs (adults)	Annular urticated plaques with peripheral vesicles	Common	Lymphoproliferative disorders

# ACNE AND ROSACEA

- Q1) A 28 years old develops this lesion and 2 weeks later he develops other small lesions on front and back?
- A) What is the name of this lesion?
- B) Most likely diagnosis?

**Answers:** 

- A) herald patch
- **B)** Pityriasis rosea





# **EXPLANATION: -**

**Pityriasis rosea** (PR) has been thought recently to be triggered by an upper respiratory tract infection with human **herpes virus type 6 or 7** PR classically presents with an initial single annular erythematous patch with a collarette of scale – the herald patch, so called because it heralds the onset of the rest of the rash within 5–8 days, which consists of multiple smaller scaly patches on the trunk and upper arms and thighs (old-fashioned bathing suit distribution).

Patients mainly present in spring and autumn and there may be clustering of cases. the rash settles spontaneously over about 4–6 weeks, but a mild topical steroid and emollient can be given if the rash if pruritic or inflammatory.

Q2) Look at this picture carefully, then answer the following questions?

# What is the diagnosis?

Ans: Seborrheic dermatitis (SD)

# **EXPLANATION: -**

# • Seborrheic dermatitis (SD)

- Allergic contact dermatitis due to the yeast Malassezia furfur
- Hair-bearing skin
- Itchy, adherent greasy scales
- DDx → atopic eczema/psoriasis
- Tx → Ketoconazole shampoo or topical steroids (± miconazole)



# Q3) All of the following are Considered Possible treatment for her condition except?

- 1.isotretinoin
- 2.doxycyclin
- 3.combination of Isotretinoin and OCP
- 4.combination of isotretinoin and doxycycline

# **5.trimethoprim**

# **EXPLANATION: -**

Table 12.1 Treatment of acne.

Treatment	Comedones	Inflammatory papules/pustules	Mixed picture	Nodulocystic
First line	Topical retinoid Azelaic acid Salicylic acid	Benzoyl peroxide	Topical retinoid ± topical antibiotic ± benzoyl peroxide Combination of all three	Oral antibiotic + topical retinoid
Second line	Physical comedone extraction	Oral antibiotic Oral contraceptive pill (high oestrogen, low androgen, e.g. Yasmin®)	Azelaic acid + benzoyl peroxide ± topical antibiotic	Oral isotretinoin A short course of systemic steroids may be given initially with the isotretinoin
Third line		Anti-androgens e.g. co-cypindiol (Dianette®) Different oral antibiotic	Hormone therapy Oral antibiotic Oral isotretinoin	Triamcinolone injections to unresponsive lesions



- Q4) Look at this picture carefully, then answer the following questions?
- A) What is the diagnosis?
- B) How to differentiate between acne and rosacea?

#### **Answers:**

A) Rosacea

**B) BELOW** 

# **EXPLANATION: -**



#### **Definition**

 Facial flushing, persistent erythema, Telangiectasia (permanent facial erythema), inflammatory papules, pustules and

oedema. (NO comedowns)

- Mostly in cheek (uni or bilateral), or localized to nose, if chronic → rhinophyma
- Conjunctivitis, blepharitis and eyelid oedema
- Exacerbated by heat, exercise, hot food/drinks, spicy food, emotion, alcohol and sunlight.

#### **DDx**

- ullet Acne o comedones, improvement with sunlight, overlap o acne rosacea
- Seborrheic eczema → no pustules
- Dermatomyositis, Lupus erythematosus → no pustules
- Perioral dermatitis

#### Tx

- Avoid triggering factors
- Topical metronidazole or azelaic acid → mild cases, for papules and pustules
- Oral antibiotics → tetracycline, doxycycline, erythromycin
- Low-dose oral isotretinoin
- ullet  $\alpha$  1&2 -agonists for diffuse facial erythema, Laser ablation of dilated telangiectatic

	Acne Yulgaris	Rosscea	
Dermatologic Presentation	- Comedones (blackheads, whiteheads), papules, pustules, deep painful cysts . Auheus annul K.	Papules, pustules,  telangiectasias, hedness in the center of the face, 'ocular symptoms; no comedones present	
Associations	Teenagers and young adults, androgen-induced sebum production	Adults aged 30-50 years, sensitive skin, flushing	
Etiology	Pilosebaceous unit dysfunction	Neurovascular, immune, and pilosebaceous unit dysfunction	
Characteristic Face, back, chest ocation		Face	
Histology	Keratin, sebum, and bacteria within cyst-like lumen, with perifolioular inflammation	Enlarged blood vessels with perivascular lymphocytic infiltrates	

- Q5) Look at this picture carefully, then answer the following questions?
- A) What type of acne is this?
- B) What is the more severe form of acne, that can be associated with fever and malaise?

#### **Answer:**

- A) Acne Kodalis nuchae
- B) Acne fulminans

# **EXPLANATION: -**

- <u>o Acne keloidal is</u> → scarring acne on the neck (nuchae) in men
- Symptoms and signs
- Excessive greasiness, 'spots', 'blackheads' or 'pimples.
- Inflammatory papules and pustules → larger cysts and nodules.
- Resolve into post-inflammatory pigment changes and scarring.
- Atrophic and pitted
- Deep → ice pick, rolling and boxcar
- Hypertrophic or even keloid.
- Hyper/hypopigmented and erythematous



#### Acne conglobata/fulminans

- Severe, more in boys and tropical climates
- Extensive, nodulocystic acne and abscess formation
- Fulminans → associated with systemic symptoms of malaise, fever and joint pains
- Pyoderma facile → necrotic lesions
- $\circ$  Gram-negative folliculitis  $\to$  Klebsiella, Proteus, Pseudomonas & E. coli

#### Acne vulgaris

Common type, more in males, during puberty, in comedogenic areas of the face, back and chest, familial

#### Acne excoriée

- Picker's acne, disfiguring erosions
- Infantile acne → on the face in the first few months

- Q6) Look at this picture carefully, then answer the following questions?
- A) What is this phenomenon called?
- B) What is the disease?
- C) Two triggering factors?

**Answers:** 

- A) Rhino phenomena
- B) Rosacea
- C)Heat, spicy food, alcohol, sun light





In chronic rosacea the nasal skin can become coarse in texture, eventually resulting in gross thickening and hypertrophy – known as rhinophyma (from the Greek, 'this' nose, 'phyma' growth).

- Q7) Look at this picture carefully, then answer the following questions?
- A) Mention three lesions you will find on physical exam (NOT SLE)?
- B) differential diagnosis?

# **Answers:**

A) pustules, papules, erythema/telangiectasia

**B)** Rosacea



# Q8) Mention 4 drugs cause this eruption?

- 1- lithium
- **2-Glucocorticosteriod**
- **3-Testosterone**
- **4-Anticonvuslant**

(from Internet) there are other drugs

# **EXPLANATION: -**

#### <u>Acne</u>

#### **Definition**

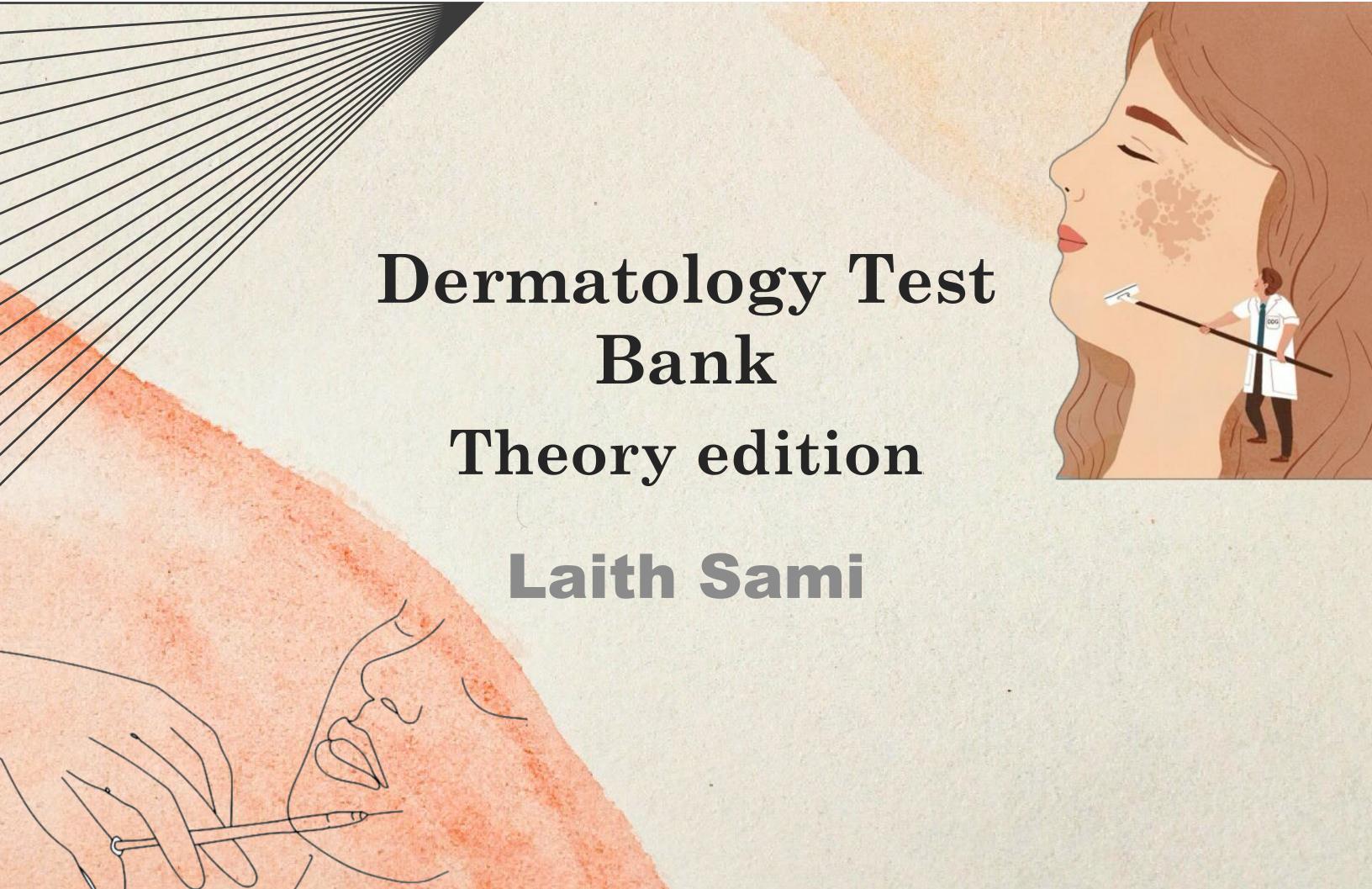
- Sebaceous glands associated with hair follicles: face, back, chest and anogenital area
- Changes
- $\circ$  Thickening of the keratin lining  $\rightarrow$  obstruction of the sebaceous duct
- Closed comedowns ('whiteheads')
- Open comedowns ('blackheads')
- Increase in sebum → greasy skin
- Propionibacterium acnes
- $\circ$  Inflammation around (redness, papules and pustules  $\rightarrow$  larger cysts and nodules. )

# **Underlying causes**

- Hormones
- Androgenic hormones, Virilising tumors
- PCOS, CAH
- Cushing's syndrome (Steroids)



- Medications
- Steroids, OCP
- <u>o Phenytoin(antiepileptics), Isoniazid, Lithium.</u>
- Fluid retention, Sweating
- Stress
- Diet → chocolate, nuts, coffee
- Seasons → improves with natural sunlight
- External factors→ oils



# PAST PAPERS 2017+2018

- 1- Wrong about scabies a brief handshake can transmit the infection
- 2- A child from Jordan valley developed a painless ulcer on his face on the site of a mosquito bite, mostly leishmaniasis (it should be a fly not a mosquito)
- 3- A rash not caused by a viral infection scarlet fever rash
- 4- Not a superficial skin infection ecthyma (pseudo folliculitis is not even an infection)
- 5- Wrong about tinea tinea versicolor rarely recurs
- 6- Treatment of toenail onychomycosis (three yellow nails) oral antifungal
- 7- A rash that is not primarily **macular pityriasis rosea**
- 8- Systemic steroids should not be used with extensive chronic plaque psoriasis
- 9- Wrong about psoriasis usually inherited as autosomal recessive
- 10- Wrong about urticaria and angioedema oral steroids are the first line of treatment
- 11- Not in lichen planus nail thickening
- 12- Not in lupus neonatal lupus develops into SLE in 20% of cases
- 13- A girl with photosensitivity and ANA titer of 1:32, next step repeat ANA in 3 months if sunscreen wasn't effective for the rash (?)
- 14- Wrong about isotretinoin should be stopped 1 year before attempting pregnancy
- 15- Wrong about squamous cell carcinoma 75% of lesions are on extremities
- 16- Wrong about eczema contact dermatitis develops 12 hours from exposure
- 17- Not a cause of generalized blistering pemphigus gestations
- 18- Wrong about shingles treated with topical acyclovir

- 19- Wrong about plain warts should always be treated because they don't resolve by themselves
- 20- Woman with unilateral, eczematous areolar rash, next step do skin biopsy

# PAST PAPERS 2016

1- eruption of an erythematous lesion on the face particularly the nasolabial folds, and eyebrows, scalp, what's the diagnosis:

#### A) seborrheic dermatitis\*

- B) eczema
- C) atopic dermatitis
- 2- Shingles, all true except:
- A) oral and topical steroids are frequently used\*
- B) Postherpetic neuralgia can last for months
- C) Its reactivation of varicella zoster virus
- 3- Ask about family history in all except:
- A) pityriasis rosea\*
- B) scabies
- C) psoriasis
- D) atopic dermatitis
- E) vitiligo
- 4- wrong about common wart:
- A) if not treated majority will turn to skin cancer\*
- B) caused by dsDNA
- C) common in children
- D) majority will resolve spontaneously

#### 5- false about urticaria:

- A) leaves hypopigmented scar\*
- B) 90% of chronic cases the cause is unknown
- C) wheal is the primary lesion
- D) very itchy
- 6- Difference between acne vulgaris and rosacea:
- A) Comedowns (this is found in vulgaris not rosacea)
- B) Pustules
- C) Papules
- D) Telangiectasia (this is found in rosacea not vulgaris)
- E) Erythema

#### 7-NOT FOUND

#### 8- wrong about psoriasis:

ANS: oral steroids are usually used to manage flare ups\*

#### 9- herald patches:

ANS: pityriasis rosea\*

# 10-wrong about pemphigus and pemphigoid:

- A) pemphigoid is associated with more morbidity and mortality\*
- B) Abs against desmoglein's in pemphigus and collagen 17 in pemphigoid
- C) intraepidermal blisters in pemphigus
- D) subepidermal blisters in pemphigoid

# 11-wrong about lichen planus:

- A) if it involves the mucosa, gingivae is the most common location\*
- B) itchy

#### 12- wrong about erythema multiforme:

# A) steven Johnson syndrome involves oral mucosa and skin of more than 30% of body surface area\*

- B) HSV most common cause of EM
- C) involves palms

#### 13- wrong about ecthyma:

- A) Deep infection\*
- B) causes generalized dryness
- C) strep is the most common cause
- D) increased in immunocompromised

#### 14- telogen effluvium, what's wrong:

- A) Can be caused by drugs
- B) Wood's lamp helps in diagnosis\*
- C) Can happen few months after childbirth
- D) presents as diffuse thinning of hair
- E) non-scarring alopecia

# 15- all can cause blisters except:

- A) chronic eczema\*
- B) impetigo
- D) pemphigoid

#### 16- topical steroids can cause all of following except:

- A) hair loss\*
- B) hypopigmentation
- C) rosacea
- D) atrophy
- E) cataract

#### 17- wrong about TEN:

#### A) most common cause is infection\*

- B) requires intensive care most of the time
- C) highly fatal

#### 18- all true about erythroderma except:

#### A) >80% of skin\*

- B) biopsy usually done
- C) hyperthermia and dehydration

#### 19- False about connective tissue disease:

#### A) Subacute lupus causes cutaneous scarring\*

B) discoid lupus will become systemic Lupus in <5%

#### 20- wrong about alopecia areata?

#### A) Fluorescent on woods lamp\*

- B) causes non-scarring alopecia
- C) can occur in children
- D) recurring in nature

#### 21- thickening and hardening of the skin, with exaggeration of its normal markings:

#### A) Latensification\*

B) spongiosis

#### 22-urticaria, which is wrong:

#### A) steroid are first line treatment\*

B) sedating and non-sedating antihistamine are used

#### 23- Breslow thickness:

#### A) from granular layer to deepest point of invasion\*

- B) from dermis to deepest point of invasion
- C) thickness in lymph nodes

# 24- Dreamscape, what is wrong:

# A) used for seeing hyphae and spores\*

- B) used for pigmented lesions
- C) used for alopecia areata
- D) Hand-held tool

# 25- Unilateral hand eczema, best next step:

# A) scrap and do KOH\*

- B) potent topical steroids
- C) make him wear gloves
- D) give emollients

# PAST PAPERS 2015

1. Wrong statement about DLE (discoid lupus erythematosus)?

ANS: No scarring\*

2. True about non-bullous ichthyosiform erythroderma:

**ANS:** Autosomal recessive inheritance\*

3. False about actinic keratosis:

A) It is a malignant condition\*

- B) Mostly affecting fair skinned people
- C) Mostly on sun exposed areas
- 4. Wrong statement:

ANS: Pityriasis alba appears depigmented on wood's light \*

5. False about vitiligo:

- A) Male: female (1:1)
- B) Associated with thyroiditis
- C) Peak age of incidence is 20-30s

D) It is a disease of abnormal myelinization\*

6. Wrong statement:

ANS: In dermatomyositis there is a risk of calcinosis in adults

7. Edematous erythematous lesion that blanches with pressure:

**ANS: Wheal** 

#### 8. True about atopic dermatitis:

- A) T helper cells have the major role in pathophysiology\*
- B) Most common site in children is extensor areas
- 9. Wrong statement:
- A) Apocrine sweat glands are characterized by decapitation secretion.
- B) Eccrine sweat glands have cholinergic innervation.
- C) Sebaceous glands are controlled by androgens.
- D) None of the above
- 10. Wrong statement:

ANS: Sweat glands are controlled by hormones\*

- 11. A lady presents with hyperpigmented lesion on her face that has been increasing in size, she is worried about it. Most appropriate next step is:
- A) Dermoscopic examination\*
- B) Incisional biopsy
- C) Excisional biopsy
- D) Chemical peeling
- 12. Wrong about tinea versicolor:

ANS: Cherry red fluorescence under wood's lamp\*

- 13. Not used in the systemic treatment of psoriasis:
- A) Methotrexate
- **B)** Isotretinoin\*
- C) Fumaric acid
- D) Cyclosporine

#### 14. Doesn't cause tinea capitis:

#### A) Microsporum audini

- B) Trichophyton Schoenlein
- C) Trichophyton tonsurans
- D) Trichophyton verrucosum

# 15. Erysipelas, all true except:

- A) Well-defined
- B) Can be with fever
- C) Penicillin is the drug of choice

#### D) Caused by staph.

E) Mostly on L. L

# 16. Acne medicines by all of following except:

- A) Phenytoin
- B) B12

### C) Azelaic acid\*

D) Steroid

#### 17. Acne, all true except:

A) Propionibacterium acne is incriminated

# B) Isotretinoin is group d in pregnancy\*

- C) Clindamycin is not given to children
- D) Follicular plugging is the first step in pathogenesis

# 18. Apple green fluorescence is seen in:

### **ANS: Tinea capitis**

# 19. False about herpes genitalia:

ANS: Patient should be symptomatic to be contagious\*

#### 20. Scabies, all true except:

- A) Symptoms at night
- B) Sparing face and back
- C) Pyrimethrin 5% cream is the first treatment of choice
- D) In children it manifests as acral pustules
- 21. Plantar warts, all true except:
- A) Most common in children
- B) Smooth surface
- C) The most common type of warts\*
- D) Fleshy, pink and greyish
- 22. All are side effects of isotretinoin except:
- A) Teratogenicity
- B) Hail loss
- C) Elevated liver enzymes
- D) Infertility\*
- 23. Something about warts, what is true?
- A) HPV is a single double stranded DNA virus
- B) Caused by HHV-6
- 24. Not a cause of erythema nodosum:
- A) Pregnancy
- **B)** Herpes simplex\*

# PAST PAPERS 2013

#### 1. Moth-eaten alopecia is found in:

### a-secondary syphilis\*\*

b-primary syphilis c-tertiary syphilis

# 2.Apple green color:

# a-Tenia capitis\*\*

b-Tenia cruris

#### 3.AII are associated with hyperpigmentation Except:

#### a-psoriasis\*\*

b-pityriasis rosea

#### 4. Associated with HSV 6 & 7:

#### a-pityriasis rosea\*\*

b- lichen planus

# 5.all are of psoriasis histopathological changes EXCEPT:

a-Hyperkeratosis

b-parakeratosis

c-Munro's abscesses

#### d-epidermal atrophy\*\*

e-suprapappillae plate thinning

#### 6.elevated papules with a smooth surface, flesh lesions, colored brownish grayish or pinkish:

# a- plane warts \*\*

b-common warts

c-filiform warts

#### 7.AII will exacerbate psoriasis EXCEPT:

a-hypocalcemia

b-anti-malarial

c-infections

d-hormonal changes

#### e-Macrolides\*\*

#### 8. Bullous pemphigoid:

# a-Linear IgG& C3\*\*

b-granular IgG& C3

c- Linear IgA & C3

d-Granular IgA & C3

#### 9.not a treatment for viral warts:

a-cryotherapy

b- 5FU

c-salicylic acid

#### d- topical steroids\*\*

#### 10.wrong in ichthyosis vulgaris:

a- most common type

b-usually with associated with keratosis pillars

c- present at birth\*\*

d-sparing flexures

# PAST PAPERS 2012

#### 1. Not associated with erythroderma:

a. malignancy

# **b.** Lichen Planus\*

- c. Psoriasis
- d. Congenital ichthyosis
- e. Drug induced
- 2. Not associated with candida infection:
- a. occurs between the 2nd and 3rd fingers"

#### b. Affects proximal lamella

- c. corner of the mouth
- d. tongue and oral mucosa
- e. genital area
- 3. Ail of the following are common changes of the nail in lichen planus except:

#### a. Pitting\*

- b. pterygium
- c. thinning
- d. longitudinal ridging
- e. onycholysis

#### 4. Associated with mucous patch:

### a. 2ry syphilis\*

- b. b. 1ry syphilis
- c. 3ry syphilis
- d. gonorrhea

#### 5. Tinea unicum is the infection of:

- a. lateral nail folds
- b. Posterior nail folds

# c. Nail plate and Nail bed\*

- d. nail matrix
- 6. Which of following is the most common cause of Erythema multiforme?

#### a. Herpes simplex virus\*

- b. Mycoplasma
- c. Pregnancy

# 7. Which of following is associated with muscular atrophy?

#### a. linear Morphea\*

- b. pustular
- c. diffuse
- d. disseminated
- e. None of the above

# 8. The cause of pityriasis rosea?

- a. HSV 6
- b. HSV7
- c. HSV1,2
- d. a + b\*

#### 9. Ail of the following are true about plane warts except?

a. Occurs most commonly in the face

#### b. Spiky top\*

- c. different colors
- d. children and adolescents
- e. Koebner's phenomena

#### 10. Seborrheic dermatitis, all are true except?

a. Occurs in children and adults

# **b.** Most common in the extensors\*

- c. Occurs in age less than 3 months
- d. Scalp cradle cap in babies
- e. post-auricular and nasolabial folds are common sites

#### 11. Ail are causes of diffuse non-scarring alopecia except?

- a. Telogen effluvium
- b. Anagen effluvium
- c. Hypothyroidism
- d. Hair shaft abnormalities
- e. Male pattern of hair loss\*

# 12. Treatment of dermatitis herpetiform?

- a. diamino-diphenyl sulfone (DDS)\*=dapsone
- b. systemic steroids
- c. PUVA
- d. Retinoic acid

#### 13. Not used in treatment of psoriasis?

#### a. Antimalarial\*

- b. Cyclosporine A
- c. Methotrexate
- d. Systemic retinoid
- e. Fumaric acid esters

# 14. Function of Miessner corpuscle:

#### a. Sense of touch\*

- b. Erector pili
- c. Pressure
- d. innervates smooth muscles of vessels

e.?

#### 15. Nodule on nose, glossy, with telangiectasia, diagnosis:

#### a. BCC\*

b. SCC

#### 16. All true about tinea versicolor except:

# a. Apple green color on wood's lamp\*

- b. Hypo or hyper pigmentation
- c. Patches or plaques
- d. scaling
- e. most common causative agent is melissa

# 17. Congenital ichthyosis associated with renal agenesis and hernia:

#### a. X-linked\*

b. vulgaris

#### 18. Occurs in vitiligo?

#### a. Destruction of melanocytes\*

- b. Abnormal melanin synthesis
- c. Abnormal tyrosinase enzyme
- d. All of the above
- e. None of the above

#### 19. Wrong about scabies of infants?

- a. Treated with permethrin 5%
- b. May occur in back and face

# c. No family history of itching\*

- d. involves palms and soles
- e. caused by scapi sarcoptic hominis

# 20. All are against malignancy except:

# a. History of extramammary malignancy\*

- b. fat containing
- c. multiple
- d. Teralumens
- e. halo

#### 21. Ail are true regarding arterial occlusive diseases except?

#### a. Thrombi have meniscal edge\*

- b. 90 % due to atherosclerosis
- c. Embolic mostly cardiac in origin
- d. Embolism stick at bifurcation
- e. thrombotic are less dangerous than embolic

# 22. Asymmetrical lesion, with ill-defined border, and variable shades of colors (diameter was not mentioned in the question), diagnosis:

# a. Superficial spreading\*

- b. Lentigo malign
- c. Nodular
- d. Acral
- e. amelanotic

# 23. Antibodies are directed in bolus pemphigoid towards?

# a. Hemidesmosomes\*

- b. Desmosomes
- c. dermal papilla
- d. Granular cell layer
- e. None of the above

# 24. A case about a 5-year-old with features of atopic dermatitis, what do you do?

- a.CBC
- b. chest x-ray
- c. renal function
- d.lgG
- e.lgE\*

# PAST PAPERS 2009+2010

# 1- Mitotic division in epidermis is limited to

- a) basal cells
- b) melanocyte
- c) granular cells
- d) prikle cells

# 2-fungal responsible for epidemics of tinea capetis

- a) T. canis
- b) T. verrocosum
- c) T. mentagrophyte
- d) T. auduinii

# 3- which of the following is the most superficial infection of the skin

- a) ecthyma
- b) Impetigo
- c) Cellulites
- d) Furuncles

#### 4- Impetigo may occur in

- a) elderly
- b) Infants
- c) Adult
- d) Young adults

# 5- pemphigus vulgaris is a

- a) viral dis.
- b) Autoimmune disease
- c) Bacterial dis.
- d) Unknown

# 6- keratinization process is defective in all except

- a) lichen sclerosis at atrophicans
- b) Ichthyosis hustrix
- c) Psoriasis
- d) Adrenolytic hyperkeratosis
- e) Ichthyosis lamellar is

# 7- All about seborrheic dermatitis are true except

- a) may occur earlier than atopic dermatitis
- b) self-limiting
- c) itching is mild
- d) chronic
- e) prognosis poorer than atopic dermatitis

#### 8- which one is a documented cause of erythema multiforme minor

- a) drugs
- b) pregnancy
- c) DM

# d) Herpes simplex labialis

e) Internal malignancy

#### 9- Which tumor is most frequently mets to skin

- a) pulmonary CA
- b) renal CA
- c) prostate CA

#### d) breast CA

e) gastric CA

# 10- Destruction of basal cell layer occurs in

### a) Discoid lupus erythromatosis

- b) Morphea
- c) Dermatomyositis
- d) Psoriasis
- e) Pityriasis rosea

# 11- fungi doesn't fluoresce under wood's light

- a) M. auduinii
- b) M. canis
- c) M. gypseum

# d) T. mentagrophytes

e) T. schonleini

# SPRCIAL THANKS

- 1- AHMAD ZAIDAN FOR COVER SHEET.
- 2-DR.Rand Muhilan and DR.Noor AL-Ma'ani.
- 3- Johns Hopkins University.
- 4- Cleveland Clinic.
- 5- MAYO CLINIC Hospital.
- 6- DR. Rachael Morris-Jones for (ABC Dermatology BOOK).
- 7- First Aid BOOK Authors'.
- 8-Dermnetnz Organization.
- 9-Altmeyers Organization.
- 10-GROUP 2 C.



